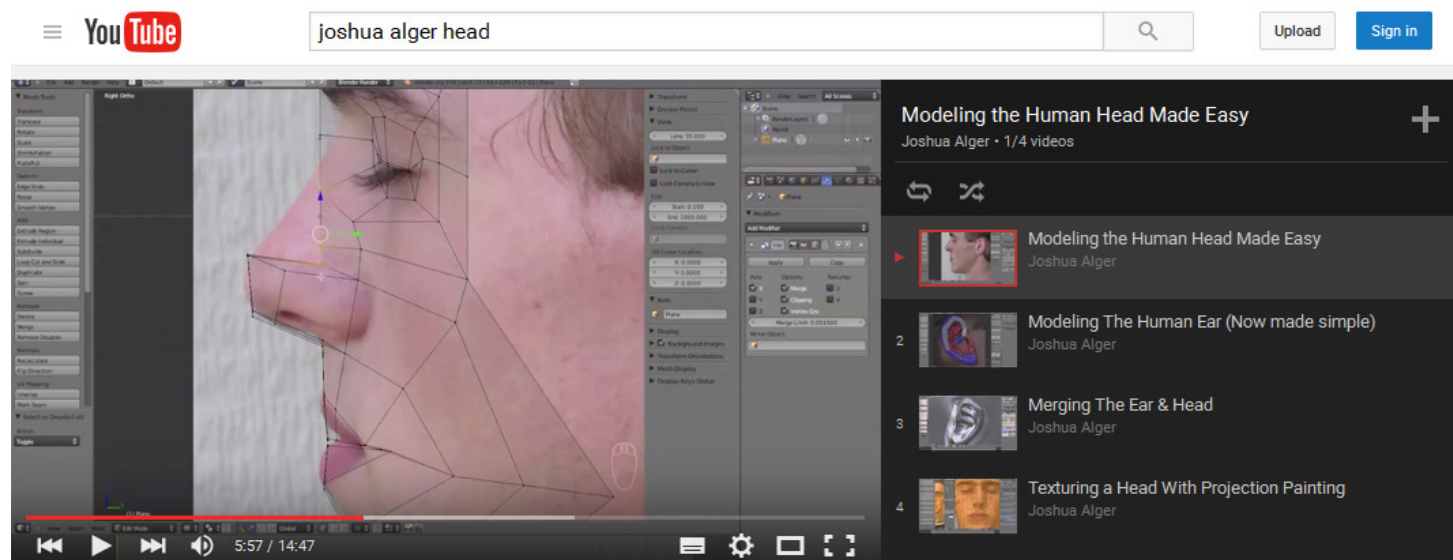


Blendan 1 head p. 1



This tutorial about creating a head based upon photos is based upon Joshua Algers tutorials Modeling the Human Head Made Easy, Modeling The Human Ear (Now made simple), Merging The Ear & Head och Texturing a Head With Projection Painting.

Other recommended tutorials for creating the body of the character, rigging and animating you can follow on youtube.com are David Ward's tutorials:

Groundhog in 4 parts - each part about an hour

Tim in 23 parts - each part about half an hour



Character Modeling: Creating a Cartoon-Style Groundhog -- Part 03



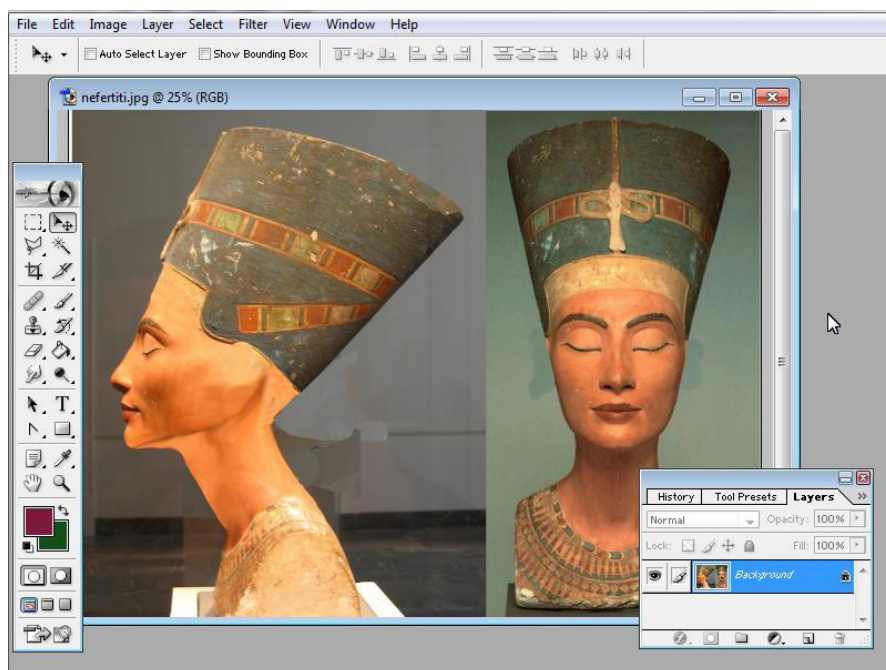
Tim - Pt 22 - Achieving a Stop-Motion effect in Blender

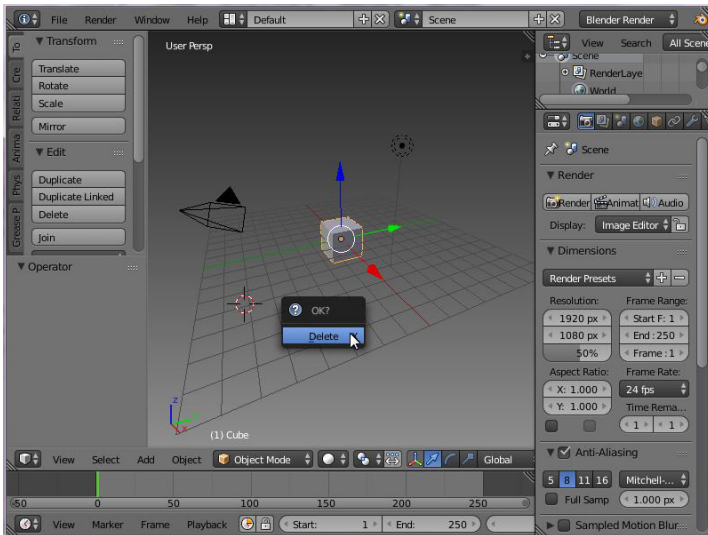
Tim - Tutorial Series
by the d-sub show / ward7299 - 23/23 videos

Start with two photos - one from front and the other a profile. Here Nefertiti is used.

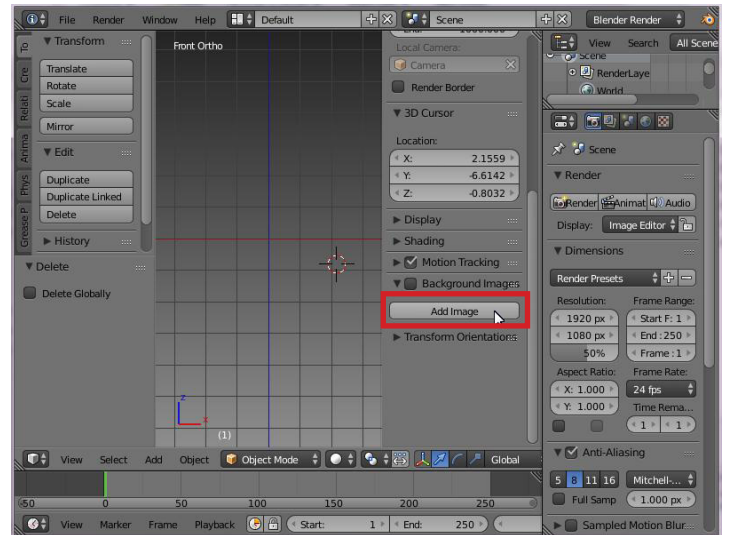
Make one picture of the photos in some photo managing program like free Gimp or Photo-shop.

Make the heads the same size - the eyes, the mouth ... you will have to adjust to the same height.

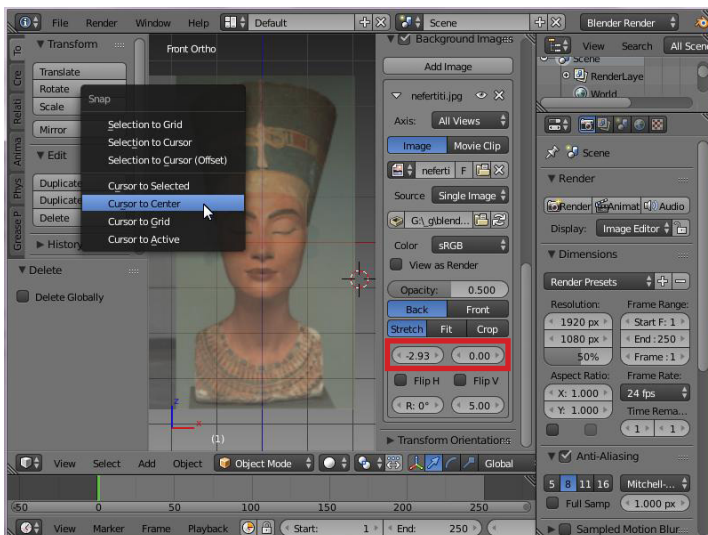




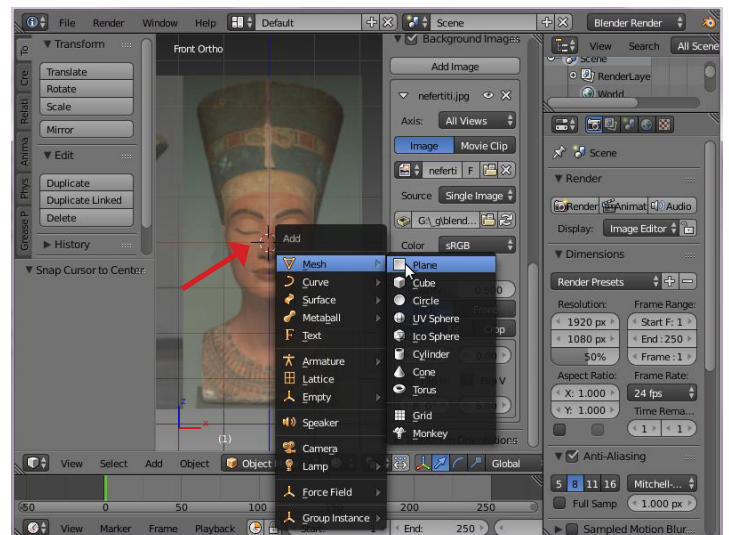
Start Blender and you will get a scene with a cube, a lamp and a camera. If this is not the case - go to File > Load Factory Settings and you will get this start-scene. Select the cube - then X-key and choose Delete.



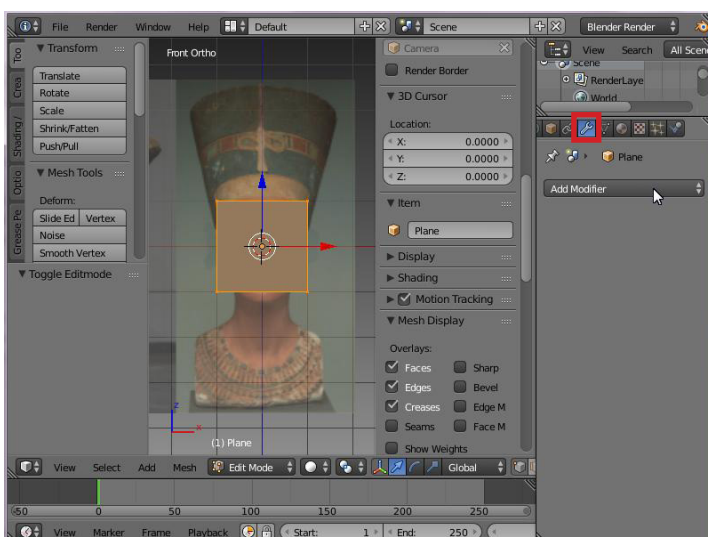
1 - for Front and 5 - to get Ortho
N - and you will get the 3D Views Property menu.
Click Add Image



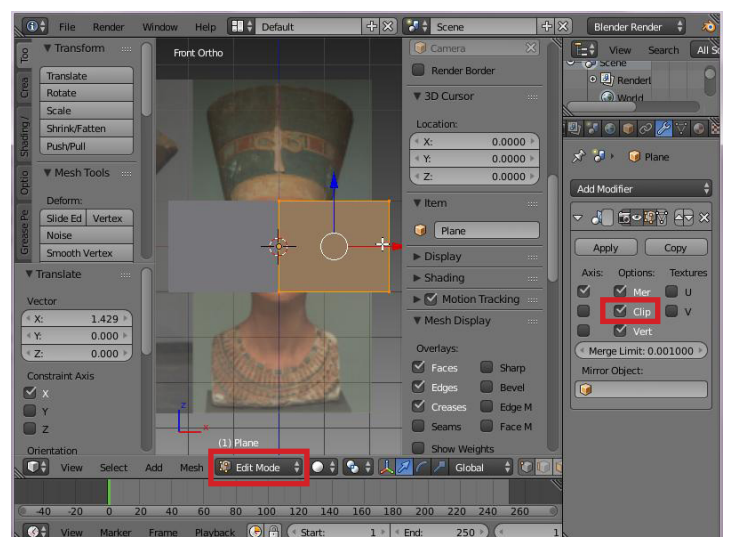
Open the image with the head both in front view and in profile. Move the image so the nose is along the vertical Z-axes. SHIFT+S and choose Cursor to Center



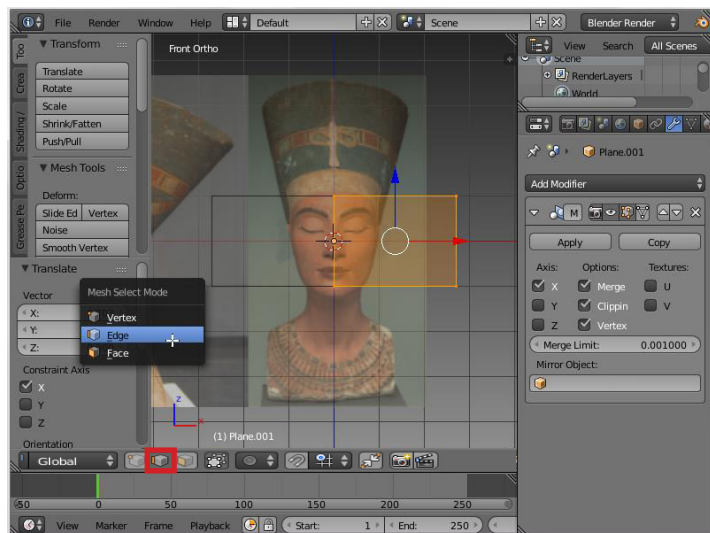
The 3D-cursor will move to the intersection between the Z-axes and the X-axes.
SHIFT+A and from the menu - choose Mesh > Plane



The plane will be horizontal so you have to rotate it. R+X+90 and the plane will rotate 90 degrees around the X-axes so it now will be vertical. Under the Modifier tab you can click Add Modifier and choose the Mirror Modifier.



The tab-key to go to Edit Mode.
Tick off Clipping.
Move the plane to the right and a similar plane will be created on the left side of the Z-axis.

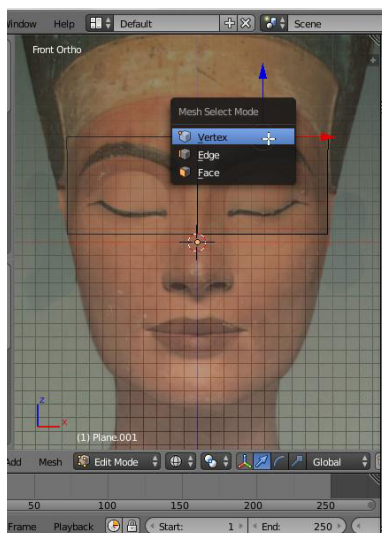


Z - to go from Solid View to Wireframe and you will be able to look through the planes.

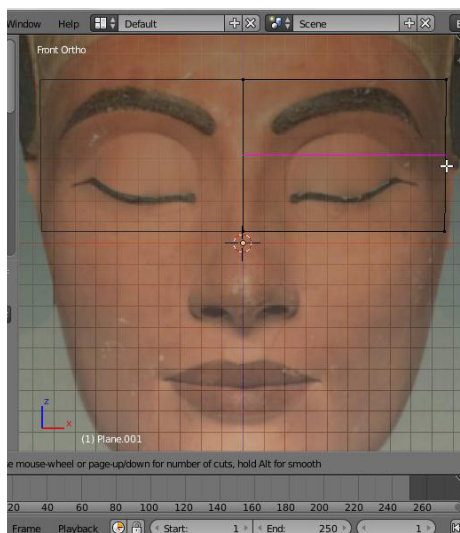
CTRL+Tab and choose Edge from the menu.



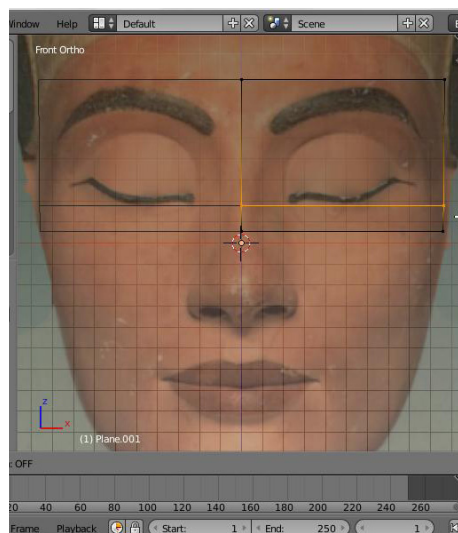
Move the edges of the plane to suit the eye better.



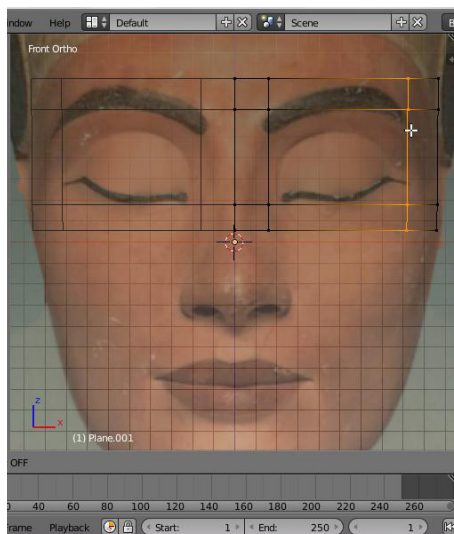
CTRL+Tab and choose Vertex



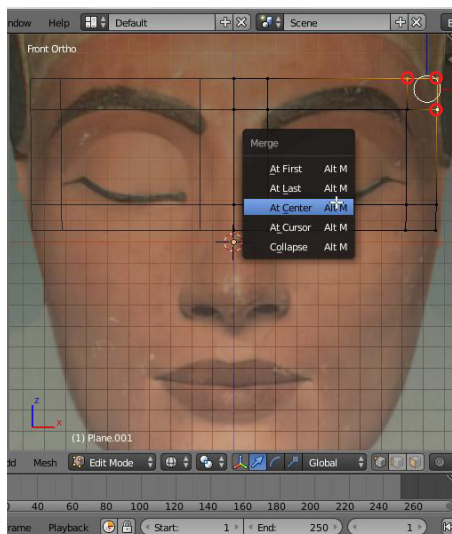
CTRL+R to make a horizontal loop in the plane



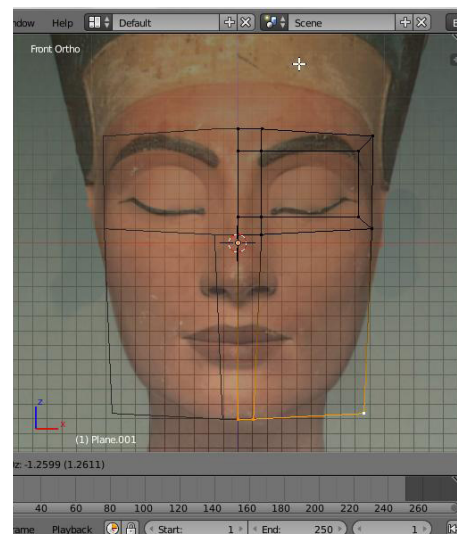
Move the loop under the eye



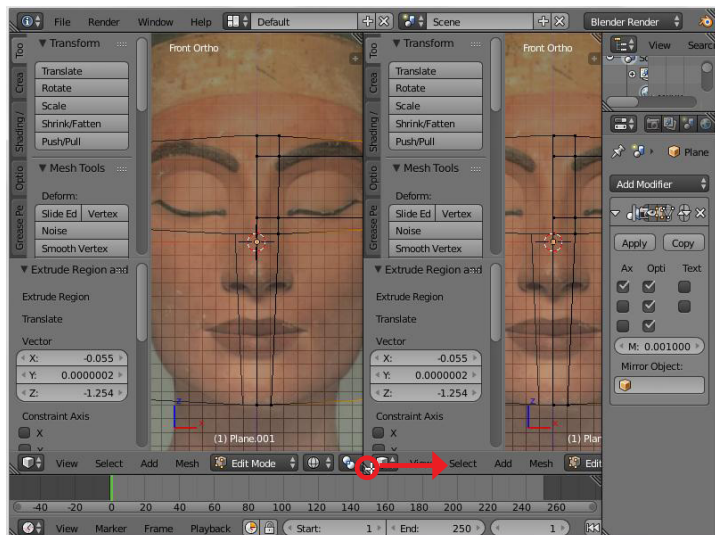
Continue with CTRL+R to make one more loop over the eye and one loop at the outer side of the eye



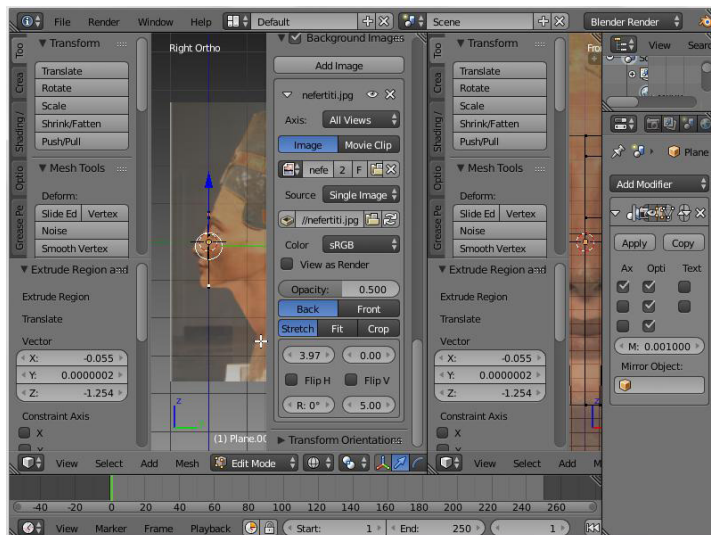
Select 3 vertices above the eye and then ALT+M and choose At Center.
Select 3 vertices under the eye and then ALT+M and choose At Center.



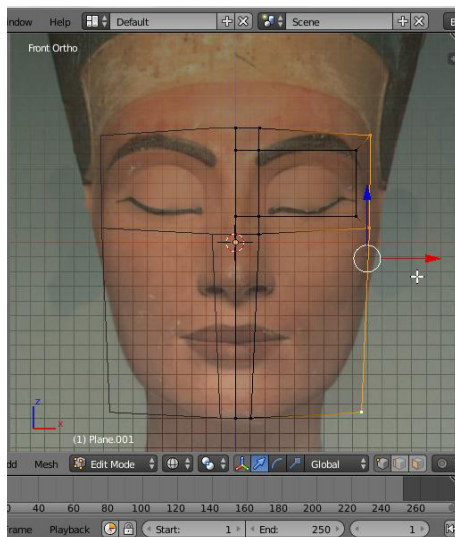
Now select the 3 vertices along the bottom edge and then E - to extrude the 3 vertices and move them down below the chin



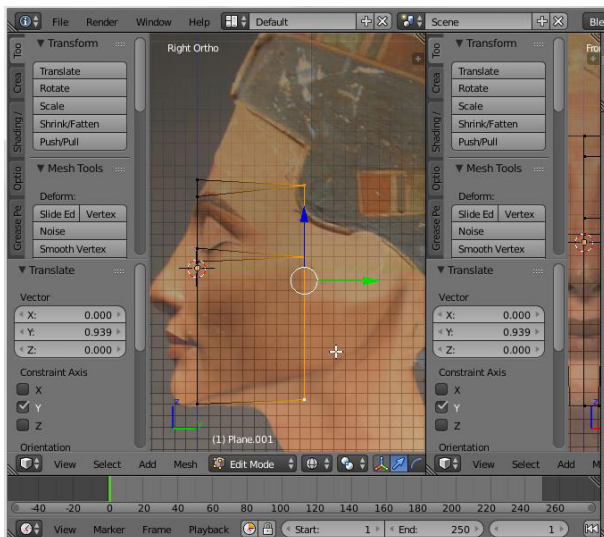
Time to make a new window to show the profile. In the left corner of the bottom of the 3D view there is a small triangle. Move the triangle to the right and a new 3D-view will show up.



3 - to choose Right Ortho for the new window. And move the picture so the eye of the profile will be in line with the mesh - the wireframe model.



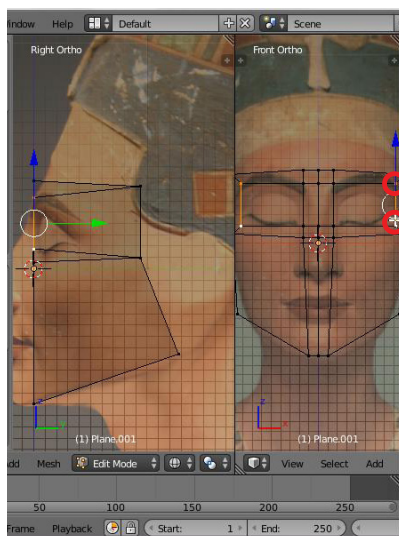
In the Front view choose the 3 vertices along the side of the face.



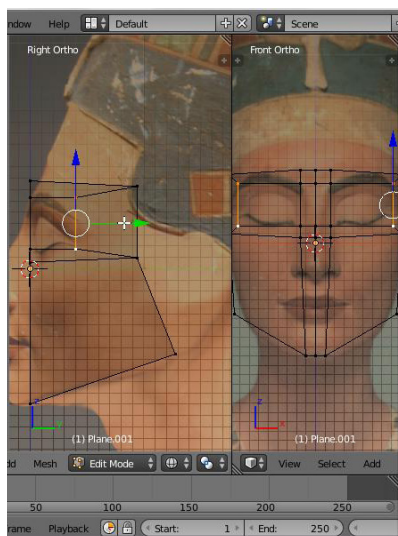
In the Right view drag the 3 vertices backwards.



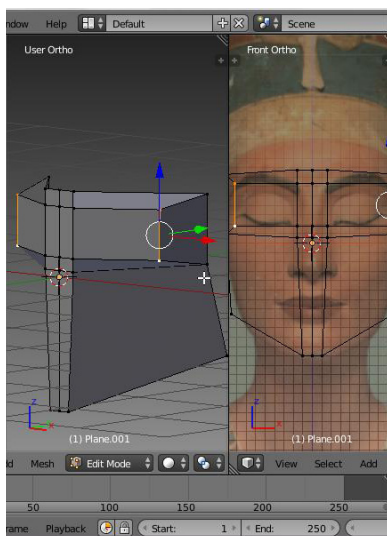
Move a vertex to follow the cheek.



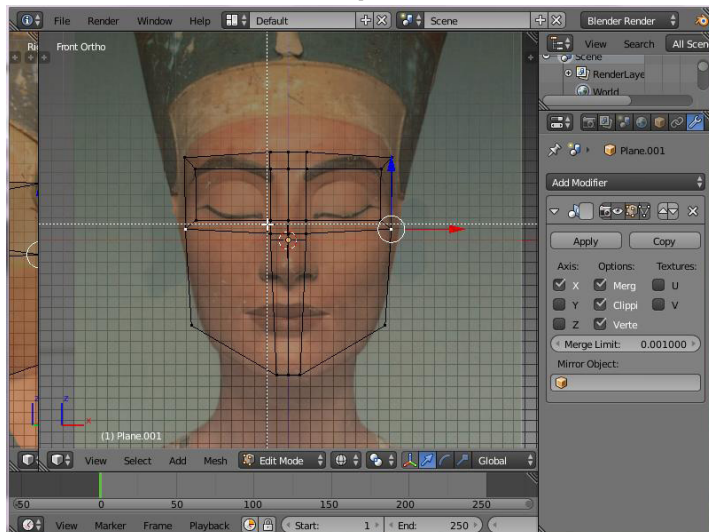
In the Front view choose 2 vertices beside the eye



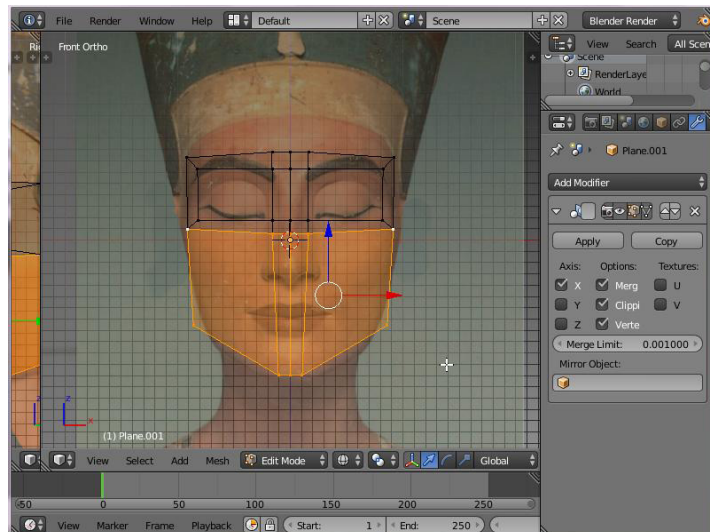
In the Right View drag them backwards.



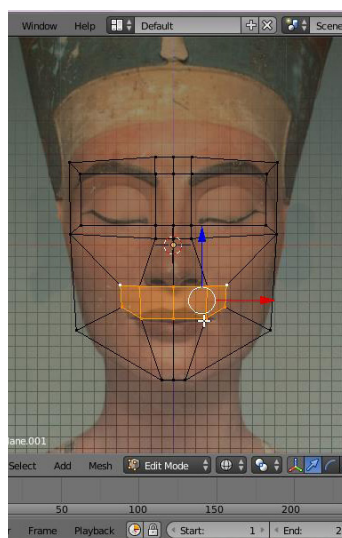
Z - to go from Wireframe to Solid and then rotate the scene a bit to get a view of what you have created so far.



Choose the vertices around the lower part of the face

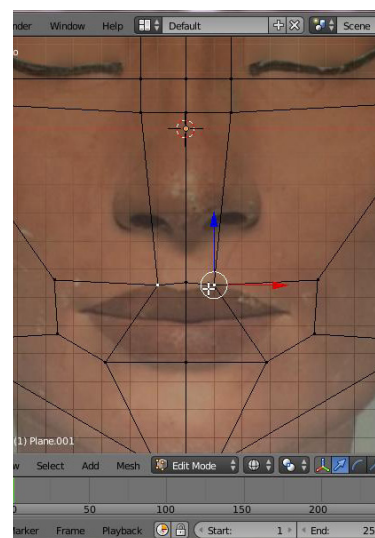
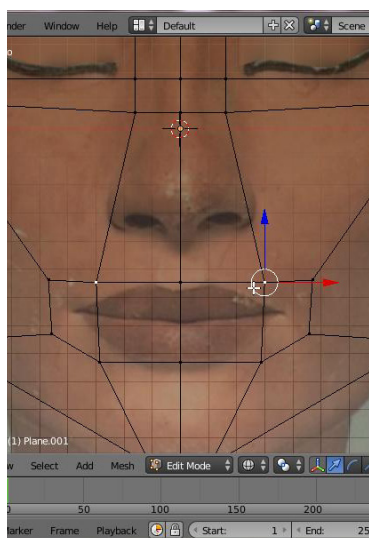
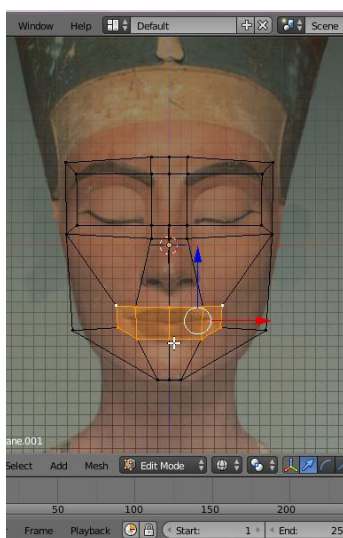


E - to extrude and then directly S - to scale the extrusion down

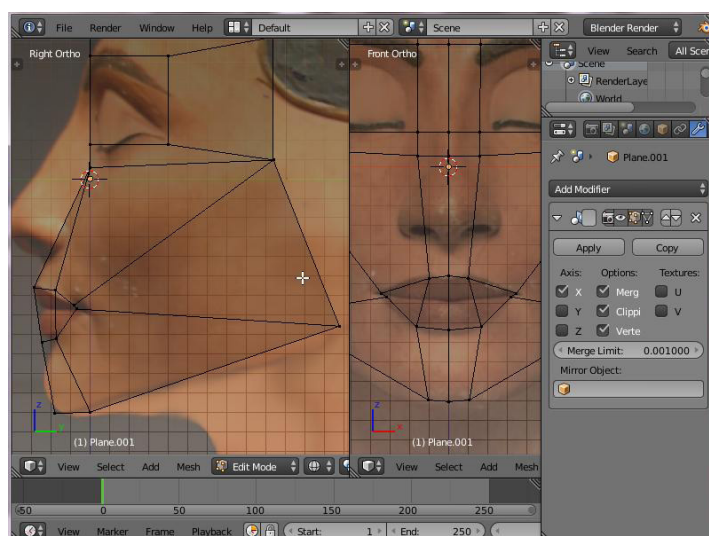


The result!

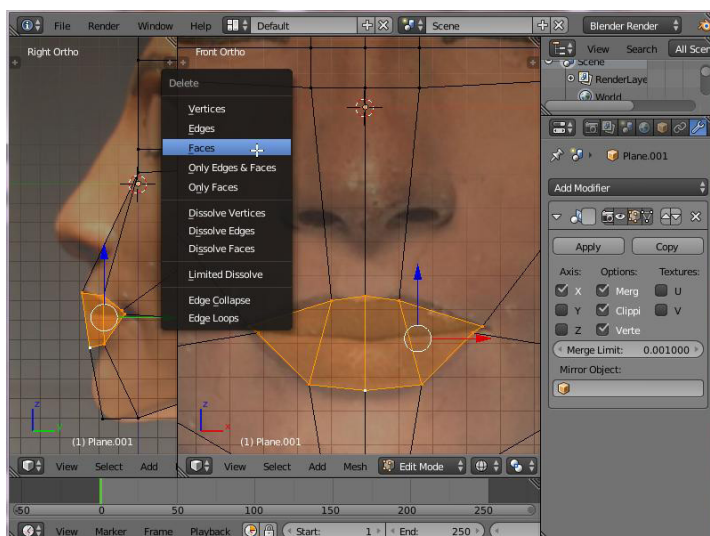
G - to move it to the mouth



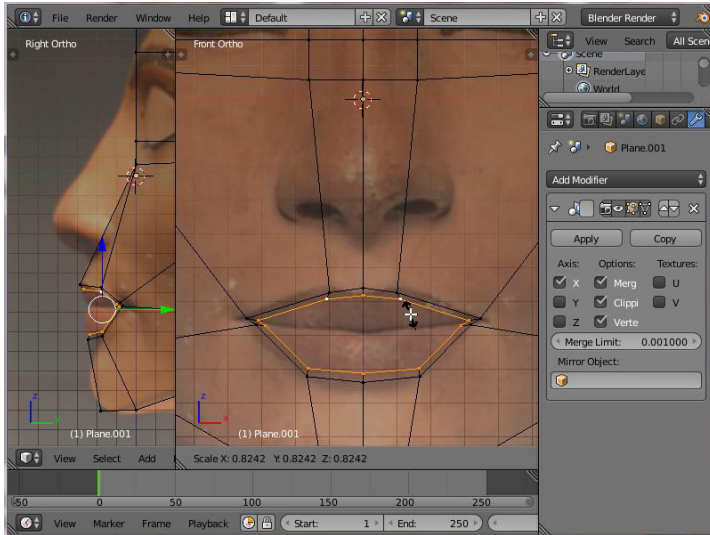
Move the vertices into place. You can use the arrows or with the right mouse button inside the little circle and drag the vertex into place. Confirm the move with the left mouse button.



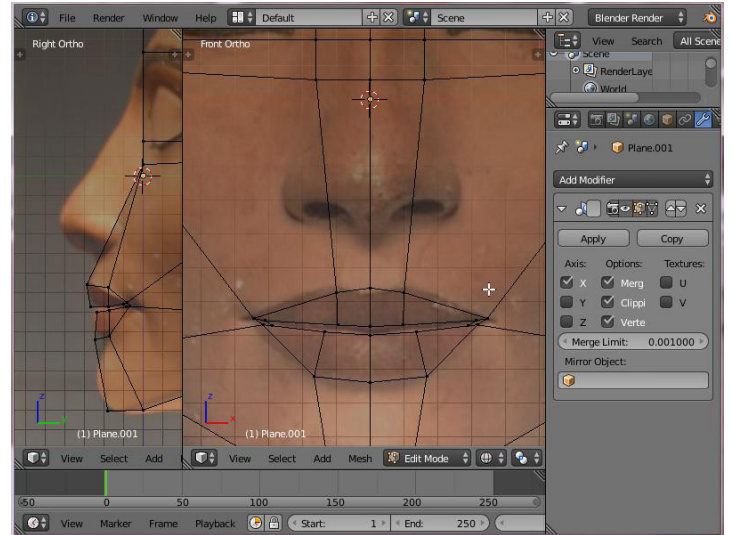
Also you have to drag the vertices into place in the right view



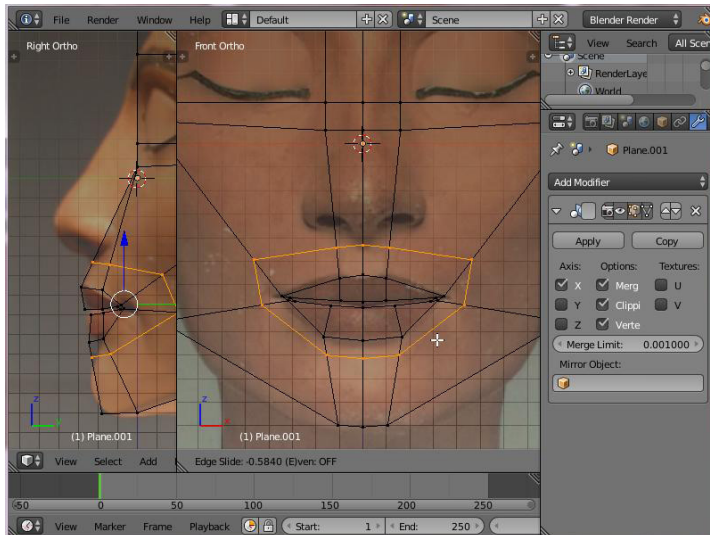
Select all the vertices around the mouth and then X and choose delete Faces



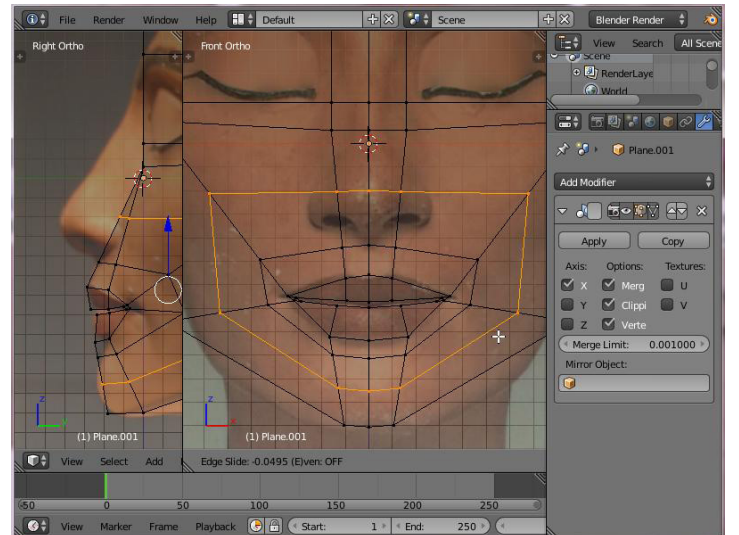
ALT click between two vertices on the edge around the mouth
E - to extrude and directly S - to scale inwards



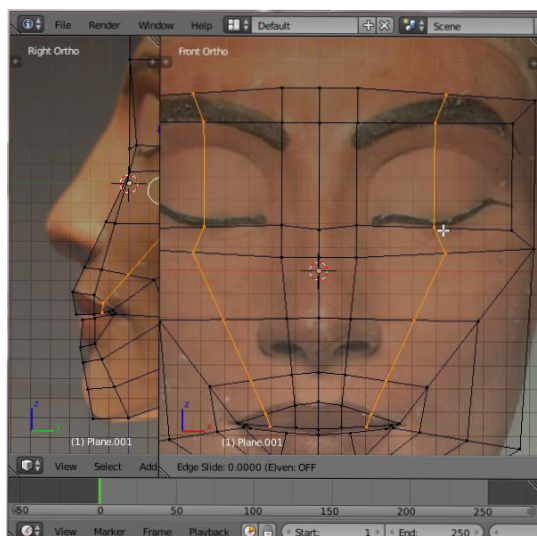
Drag the verices of the new loop into place to form lips.



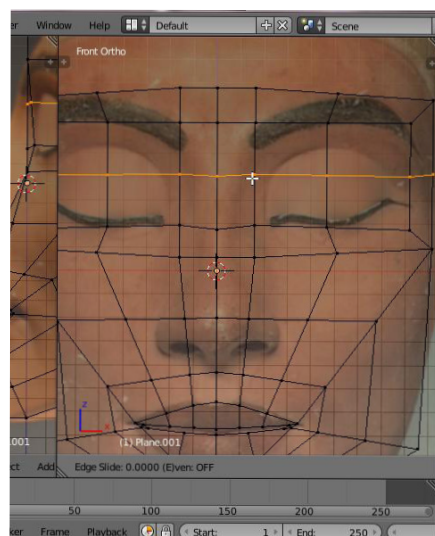
CTRL+R to make a loop under the nose.



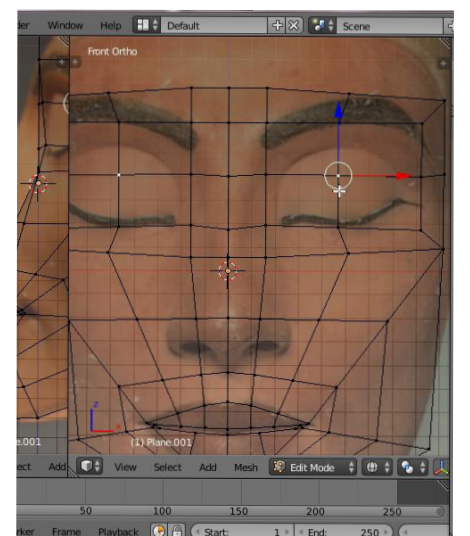
CTRL+R to make a loop over the nose openings



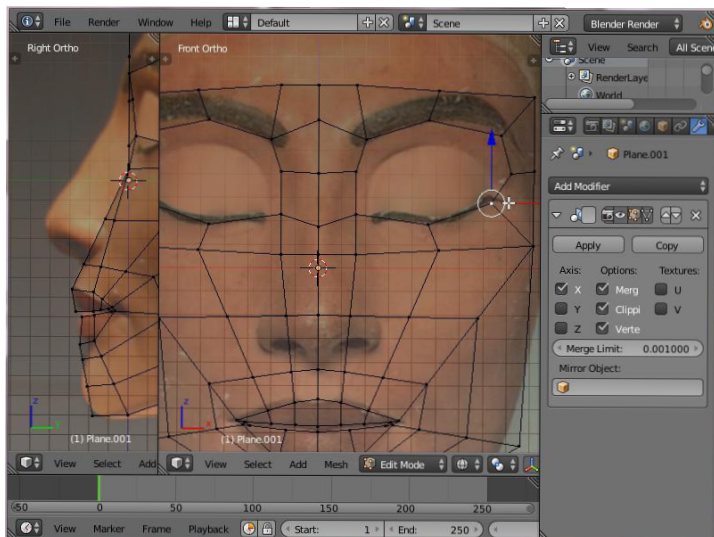
CTRL+R to make a vertical loop through the eye



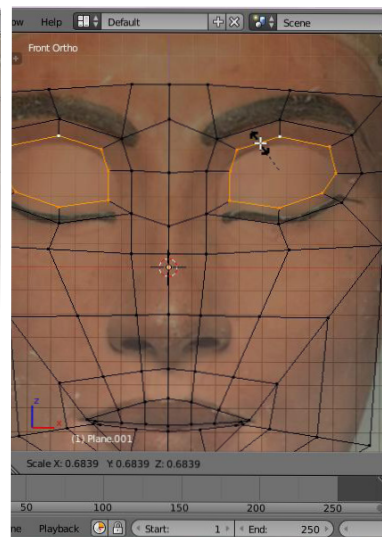
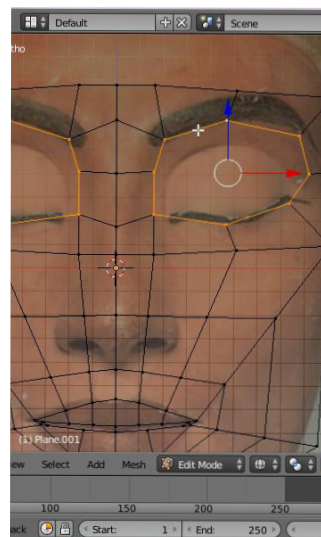
CTRL+R to make a loop horisontally through the eye



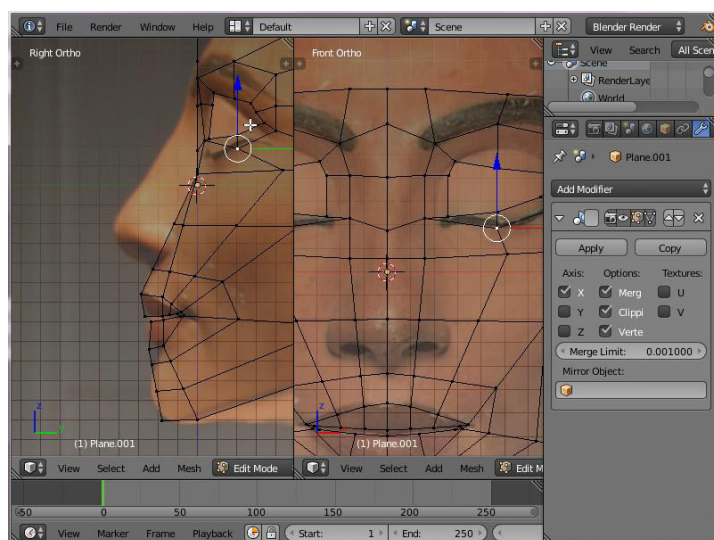
Select the vertex where the loops meet.
X or the Delete-key to delete it.



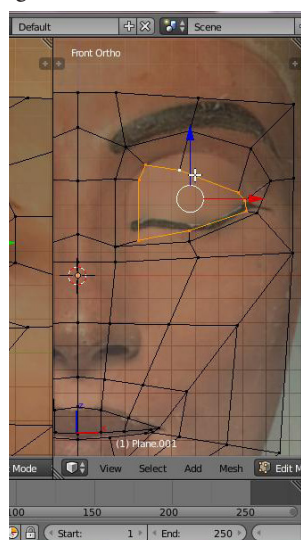
Move the vertices around the eye to make a round form



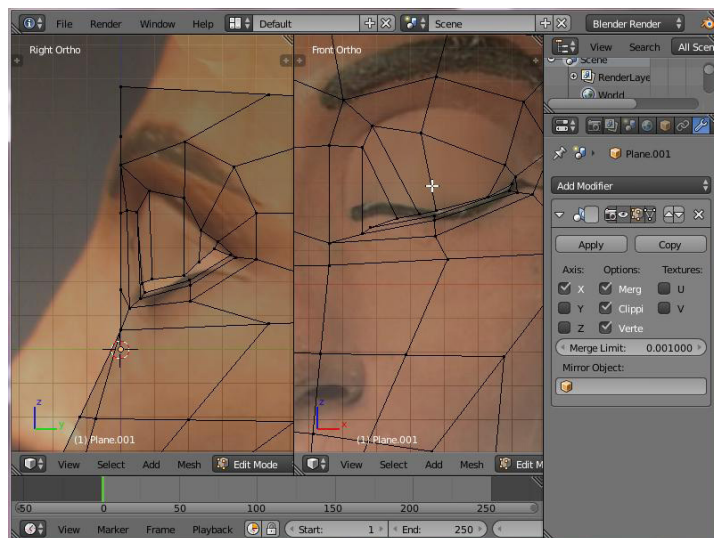
ALT click between two vertices on the edge to choose the whole edge then E to extrude and S to scale inwards.



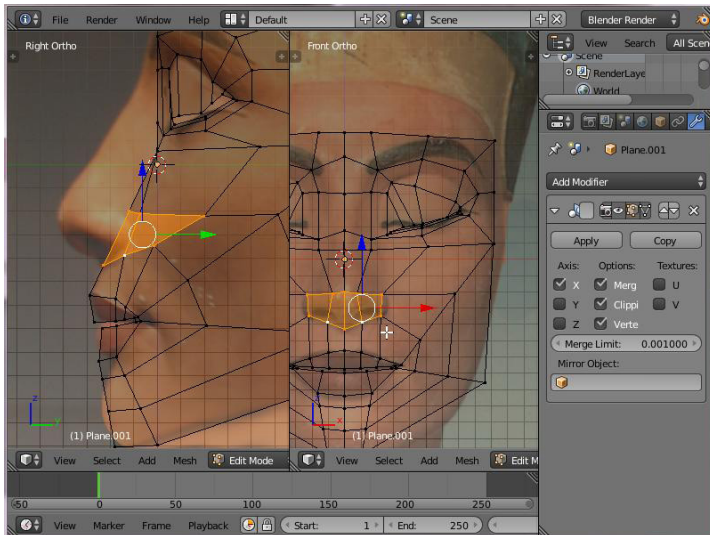
Form the loop both in Front View and Right View



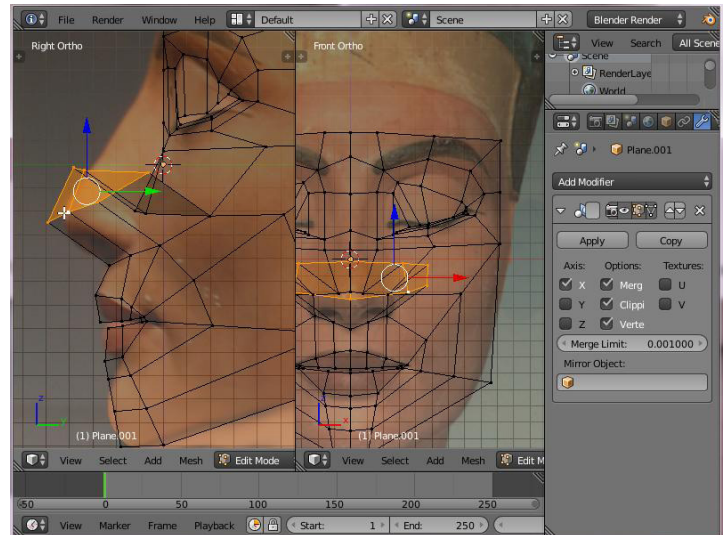
ALT click the edge between two vertices to choose it
E - to extrude then S - to scale inwards



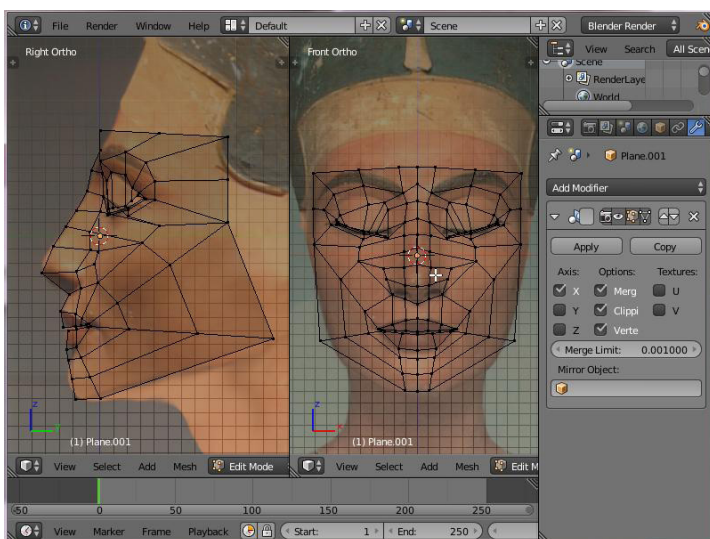
Form the new edge so it makes an eye-lid



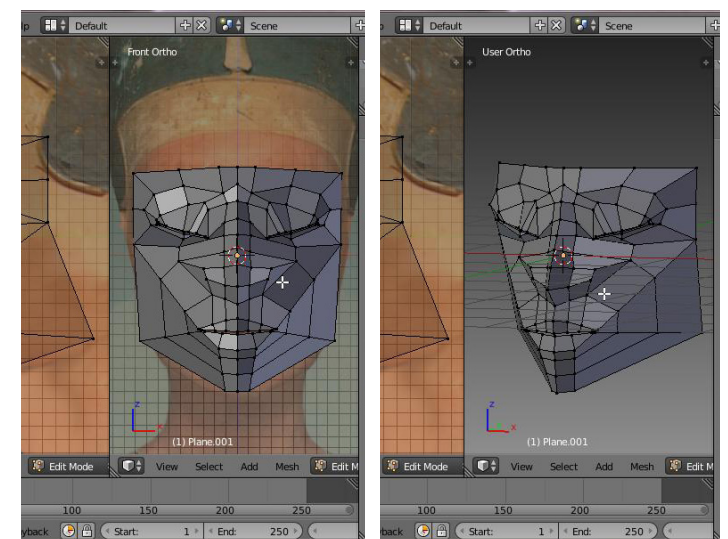
Select vertices around the tip of the nose to make two faces on either side of the nose.



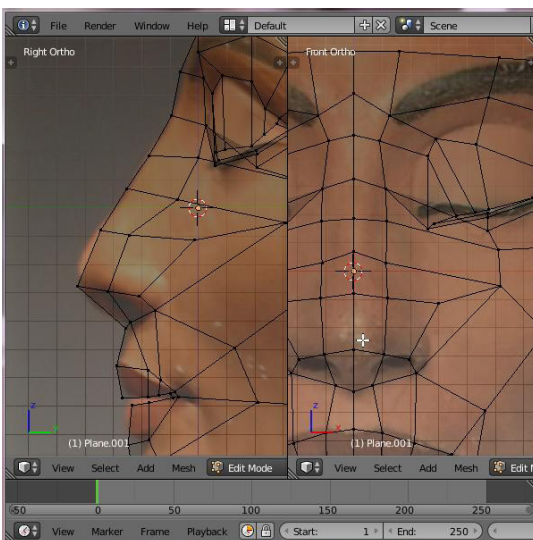
In the Right view E - to extrude



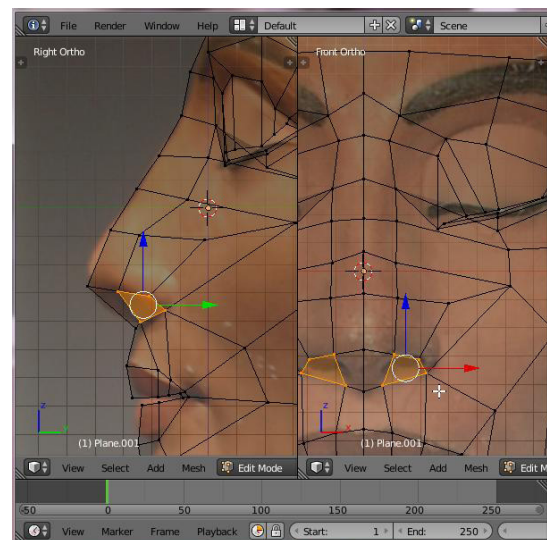
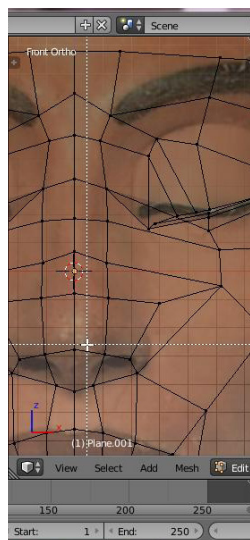
Move the vertices to form a nose



Z - to go from Wireframe to Solid and rotate the scene to have a look



Move the vertices around the nose openings



Chose 4 vertices to make a face.

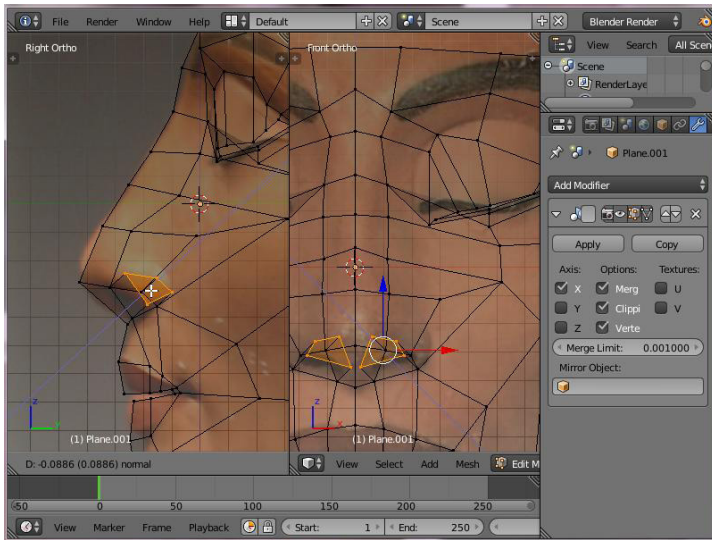
You can use SHIFT to select all the 4 vertices.

Or B to get a rectangle to select the vertices-

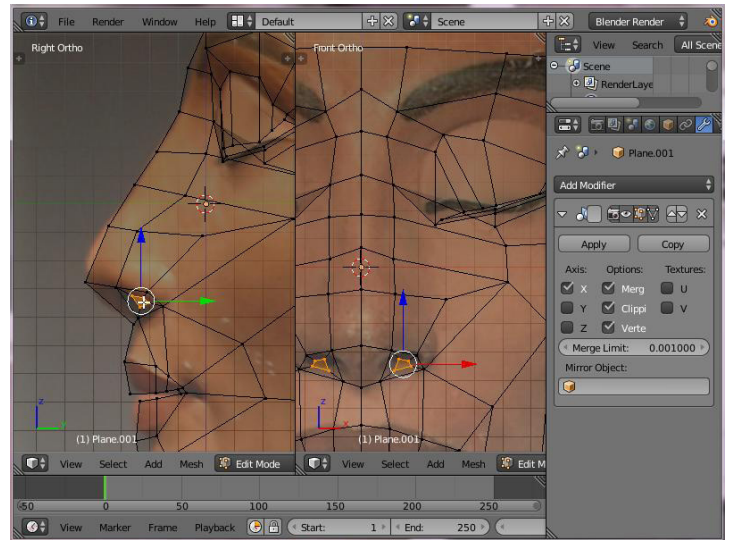
There are more methods.

You can use C - to get a circle - Roll the mouse-wheel to make it bigger or smaller. SHIFT to deselect. After selecting Return or Right click.

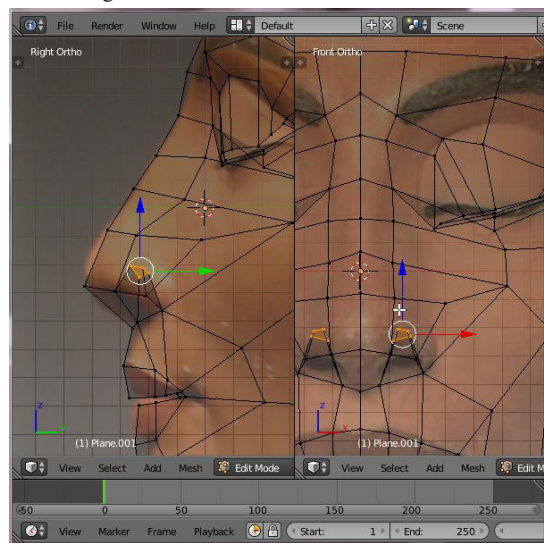
Or hold down CTRL and hold down the left mouse button and move the mouse to get a lasso to choose with.



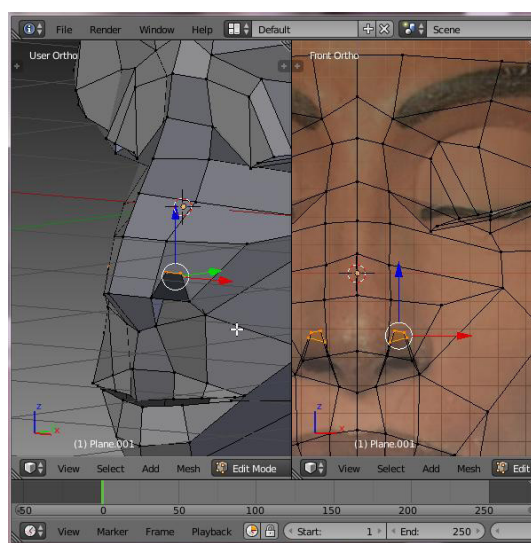
In the Right View E - to extrude nostrils



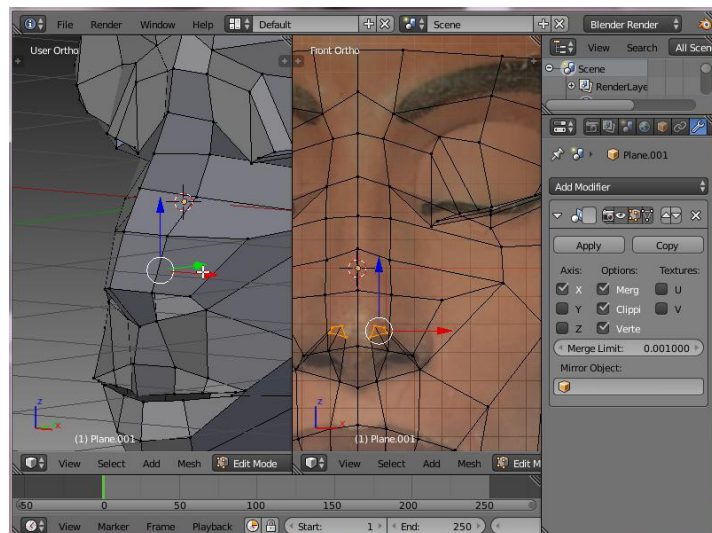
S to scale them down



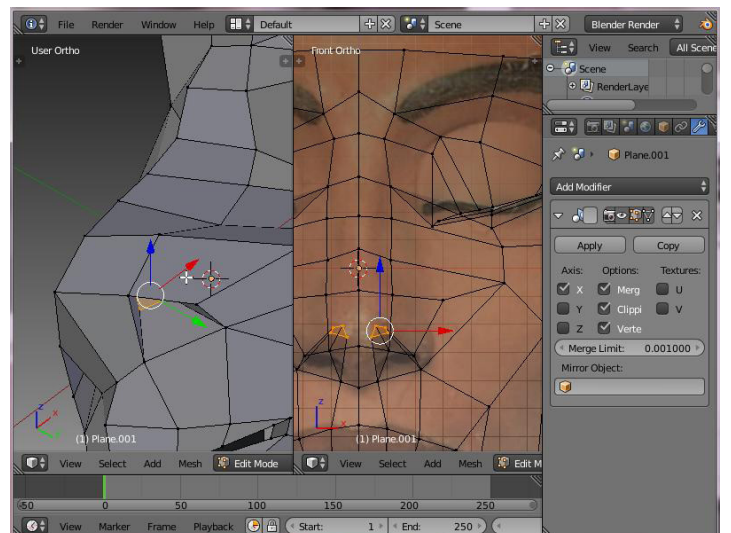
Use the blue arrow to move them upwards in the Z-direction



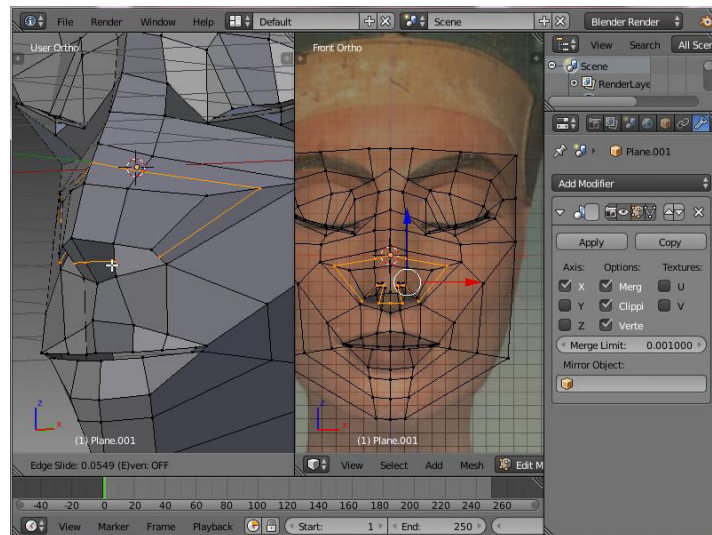
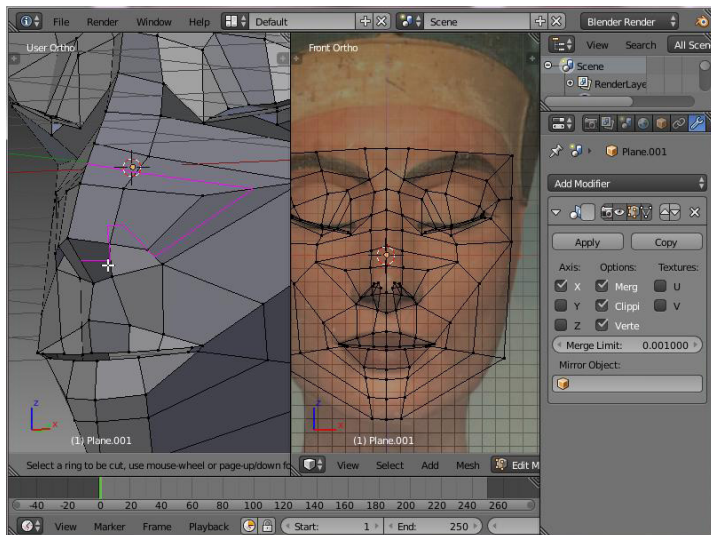
Z to go to Solid View to see the result - not so good - a bit outside the nose



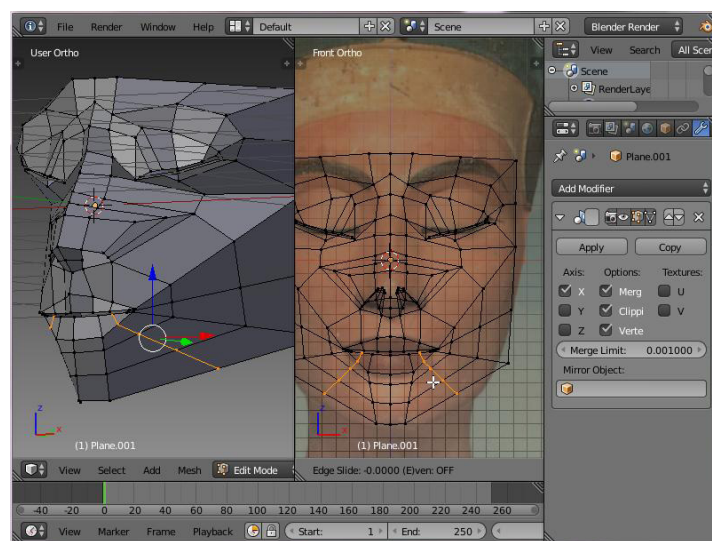
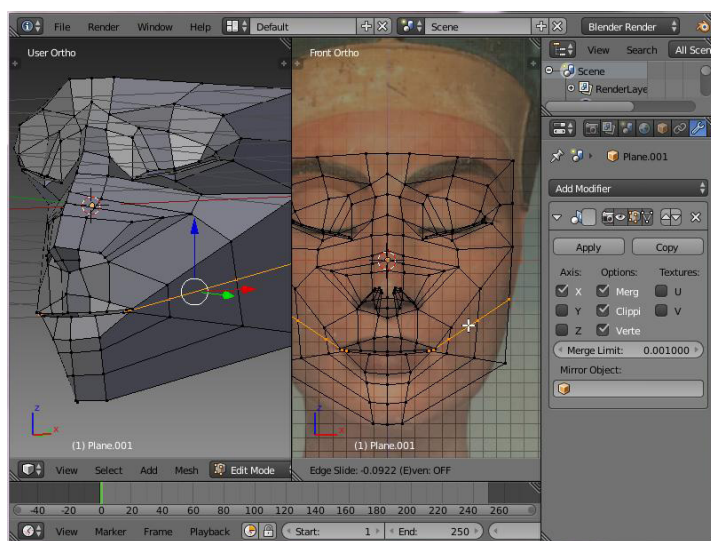
Move the nostrils more to the middle



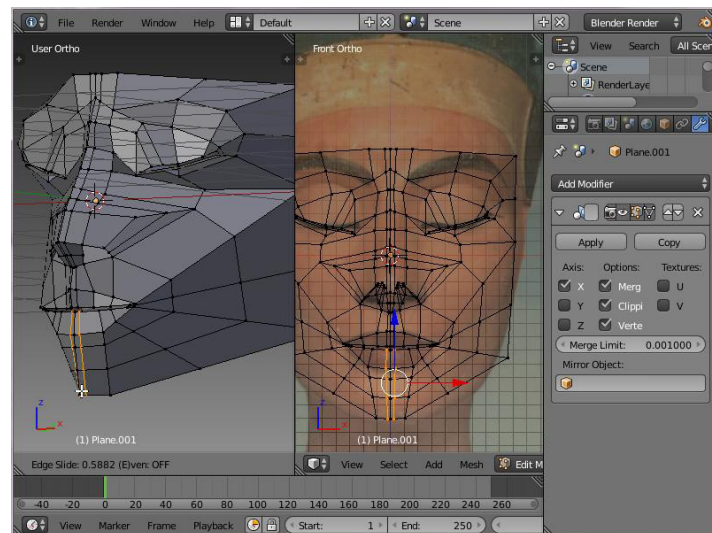
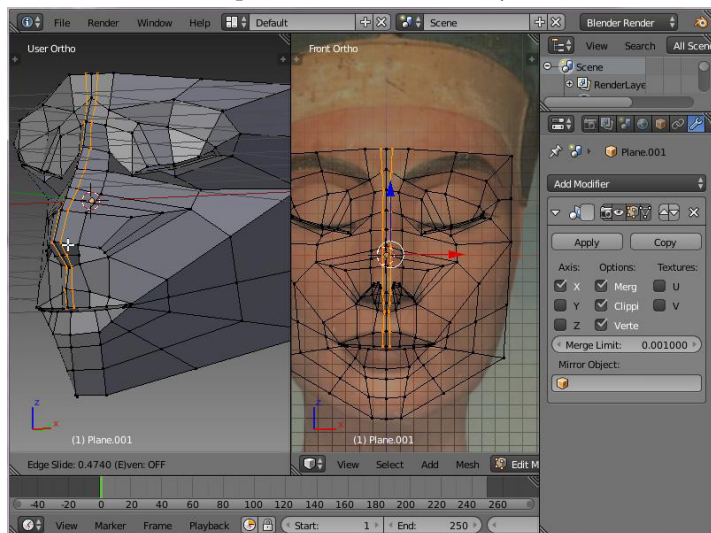
Have a look to see if everthing is ok



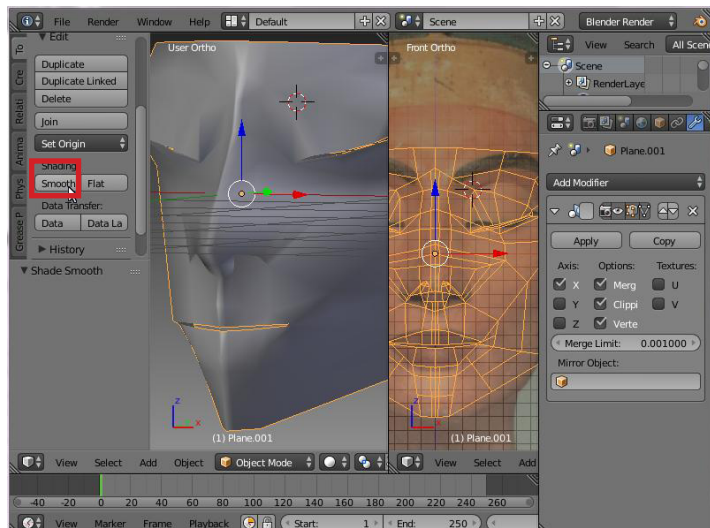
CTRL+R and make a loop around the nose



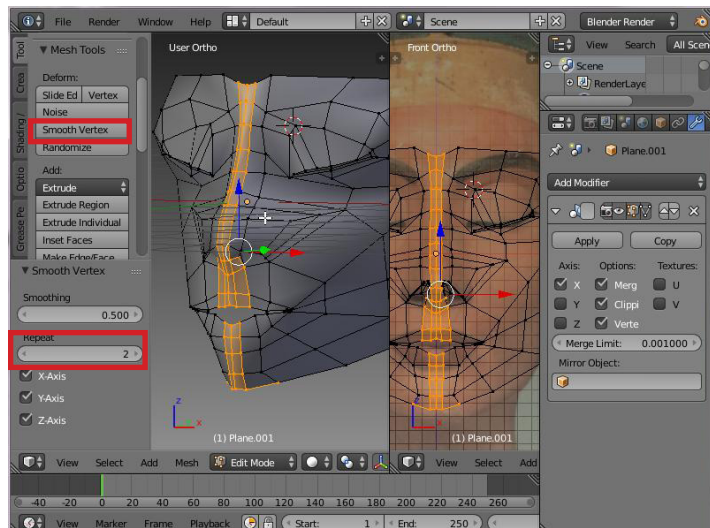
CTRL+R to make loops around the cheek and jaw



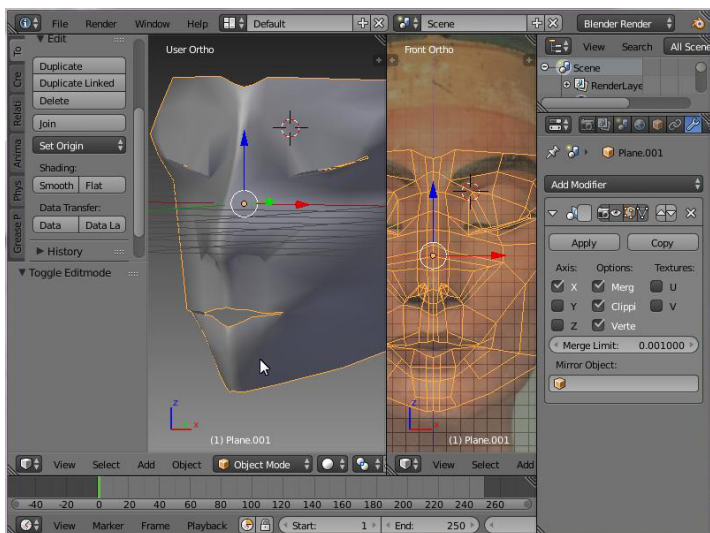
CTRL+R to make a loop around the centre of the head



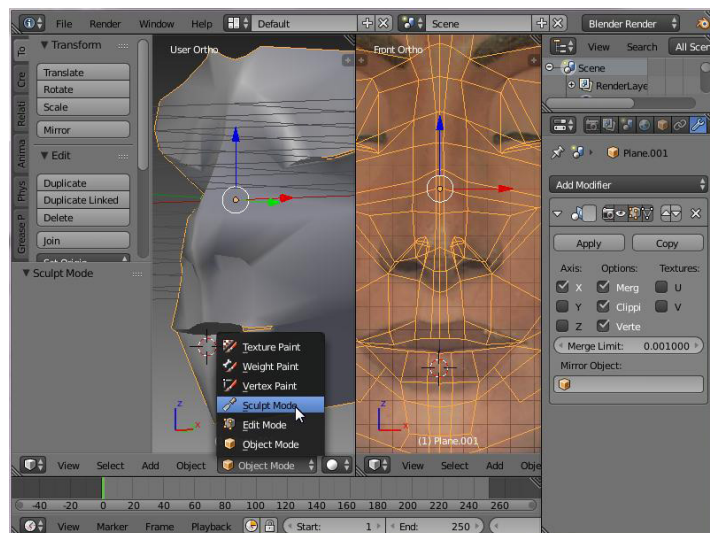
Tab to go to Object Mode.
Click Smooth to make the face more rounded.
The center of the face is too sharp.



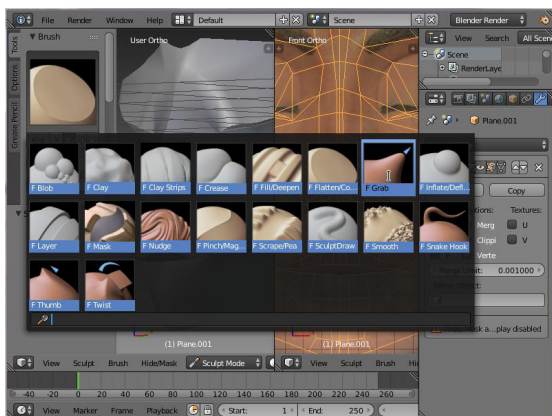
Tab to go back to Edit Mode.
C to select the vertices around the center line.
Click the button Smooth Vertex and assign a number of Repeat.



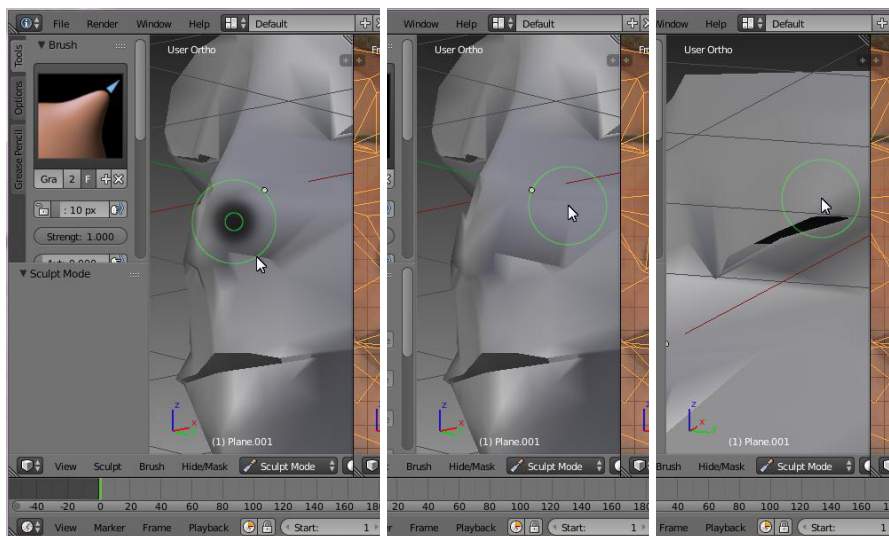
The sharp line has softened a bit.
The mouth has opened and need to be adjusted
You have to go into Edit Mode and adjust some vertices.

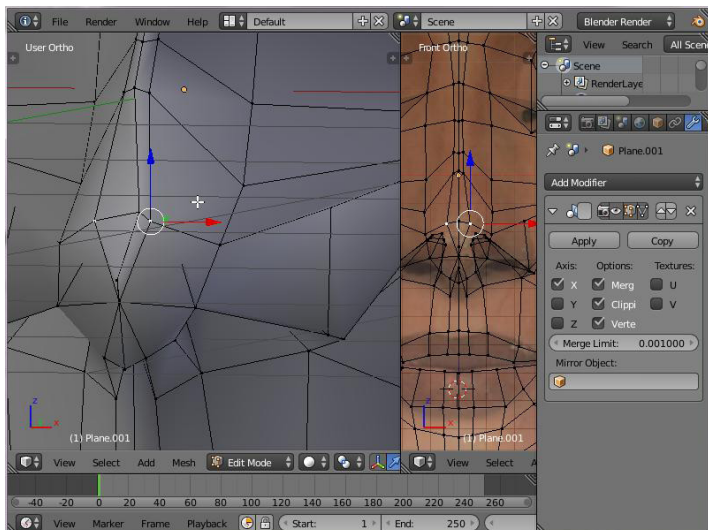


The nose and eyelids have to be remodeled. You can go into Sculpt Mode and remake them.

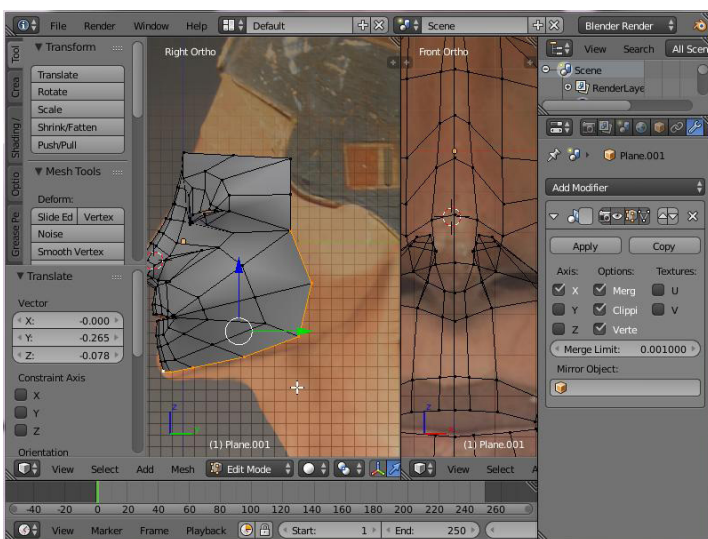


You can choose a tool to sculpt.
F -to adjust the size of the tool.
Then you can pull in the nose and the eyelids to find a good form.

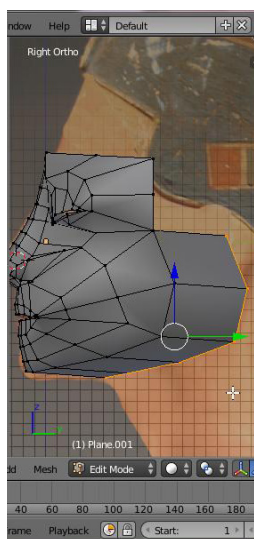




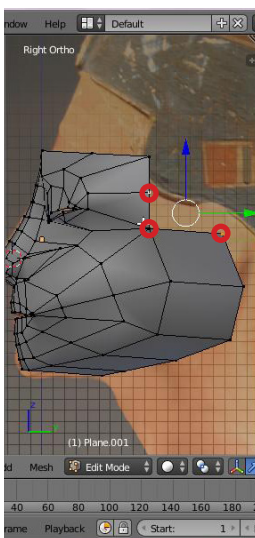
The sculpting made a crack in the nose. You can take it away - perhaps you have to uncheck Clipping to move the vertices. And then check Clipping and drag some vertices to the center.



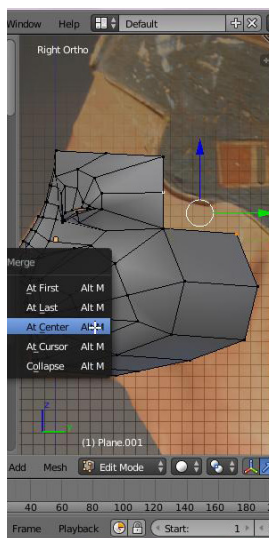
Now you have to make the rest of the head. Select vertices under the jaw and cheek.



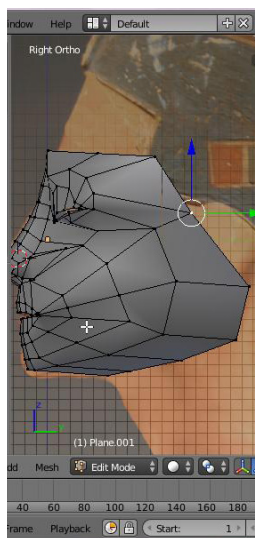
E - to extrude them backwards.



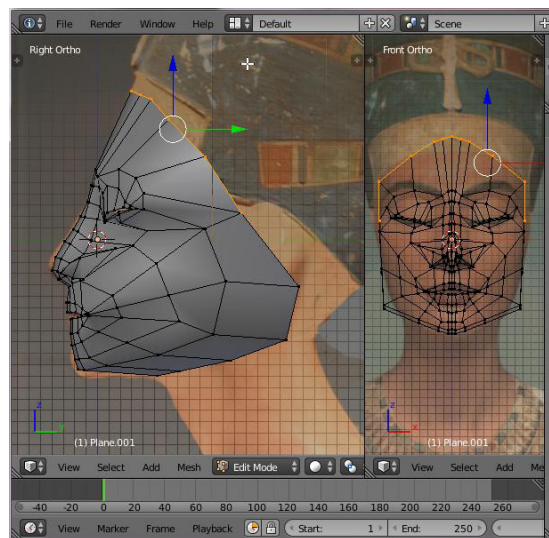
Choose 3 vertices



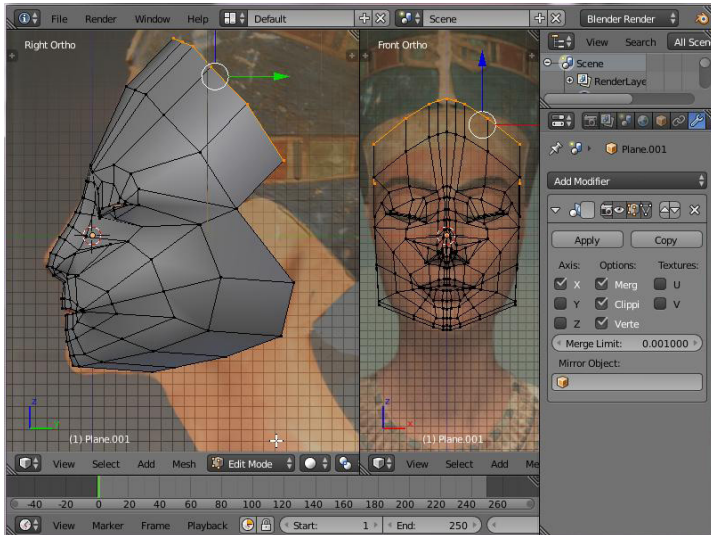
ALT+M and choose Merge at Center



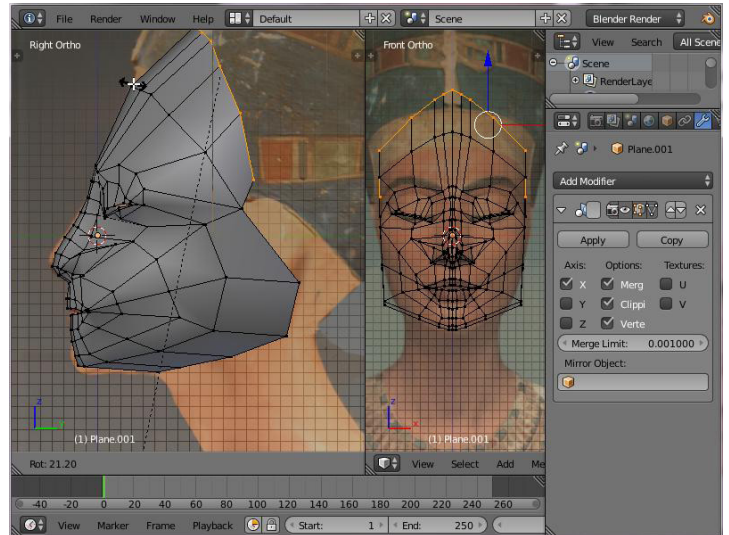
The result



Move the vertices to line them up. And then mark them all.

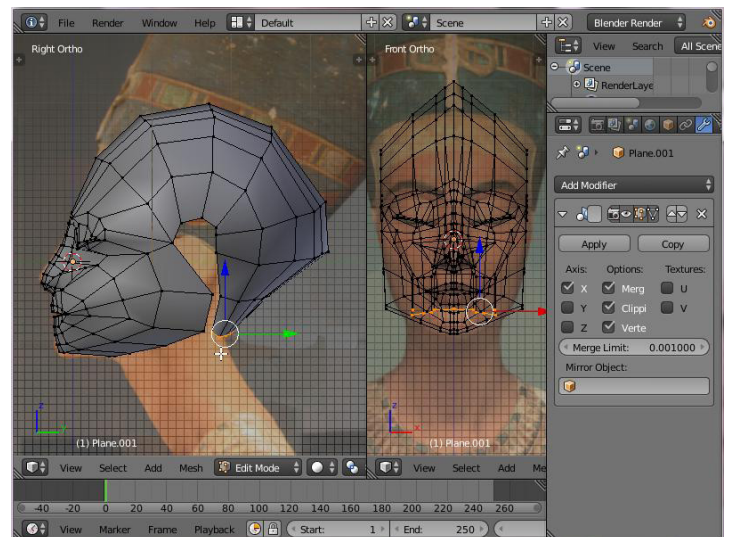
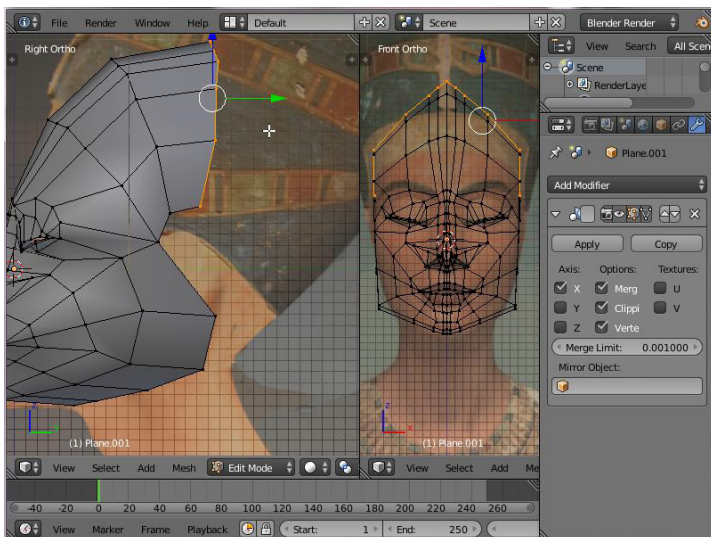


E - to extrude the choosen vertices.

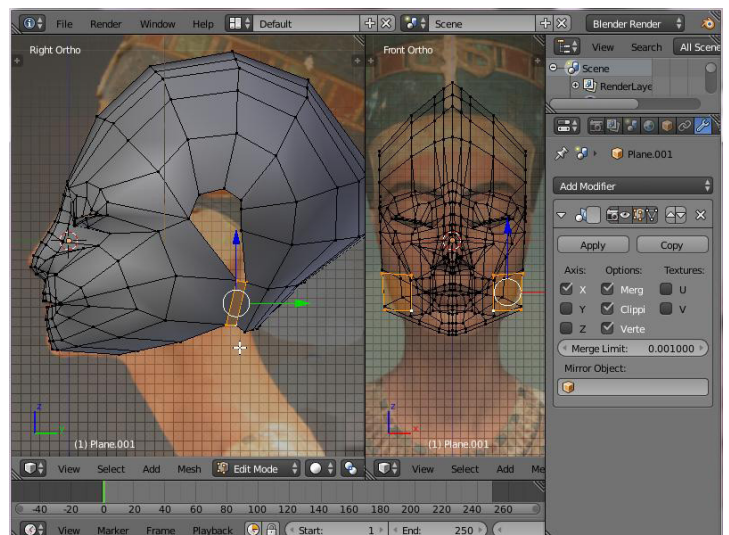
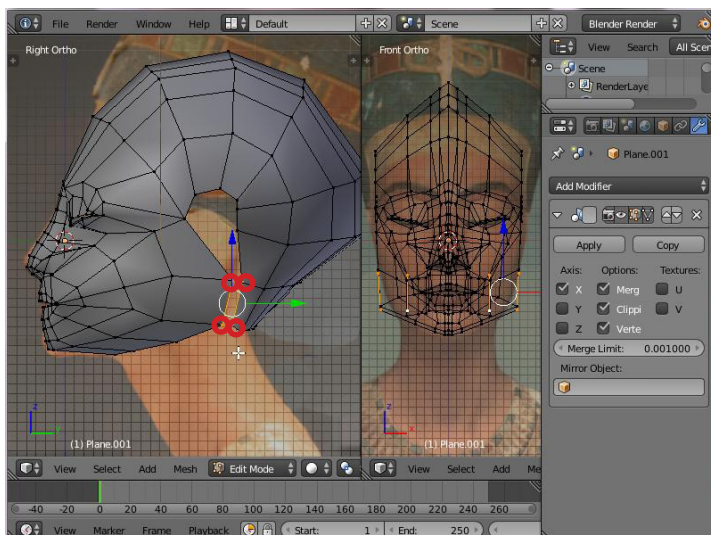


R - to rotate them. Possible you have to move with - G.

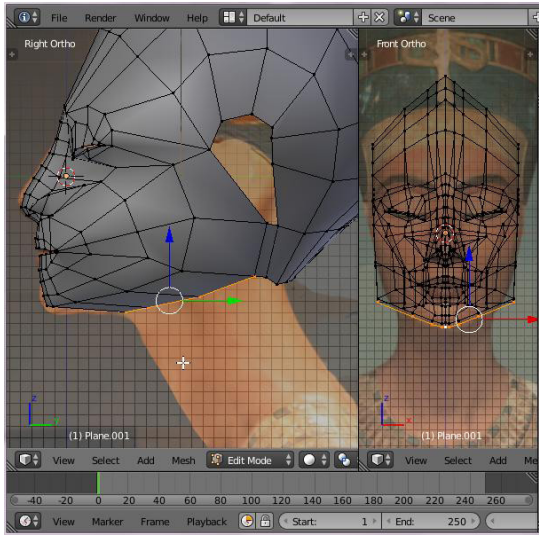
And it is possible you have to scale them with - S and possible in a certain direction - vertically with - S+Z



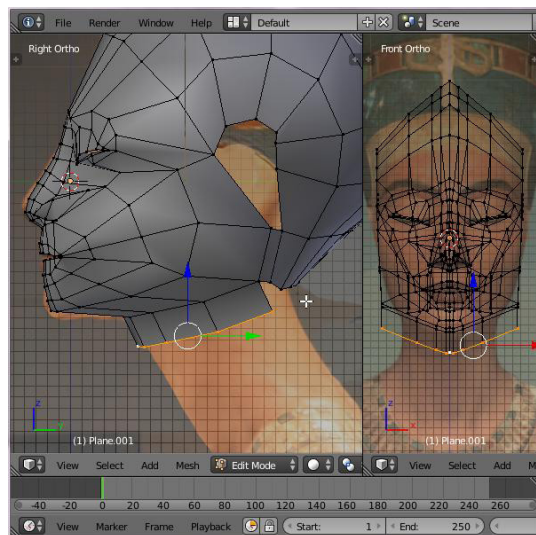
Continue to extrude, rotatate, move and possible scale to get a head with a place to put in an ear.



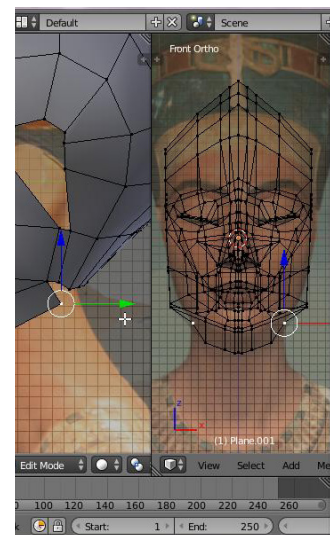
Choose 4 vertices and then - F - to make a face.



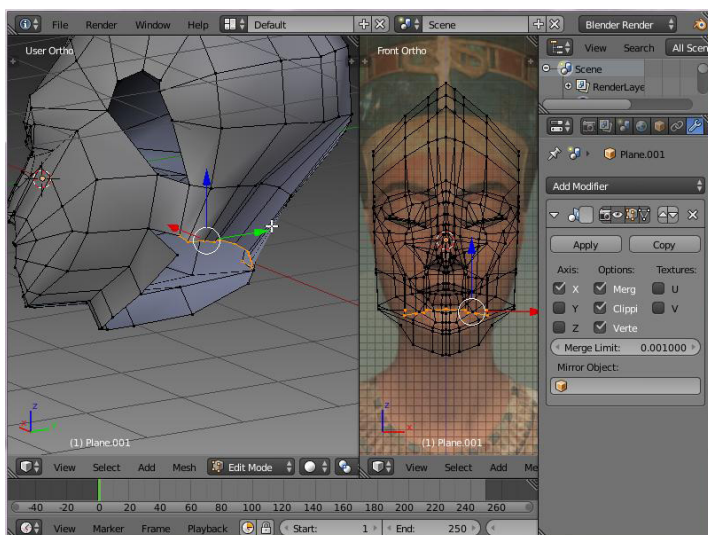
Choose vertices from the tip of the jaw and on the neck back to somewhere under the ear.



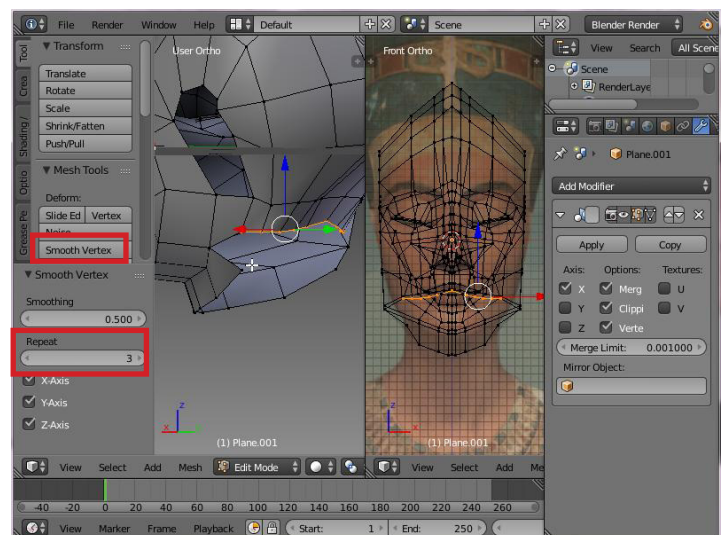
E - to extrude them to a beginning of the neck.



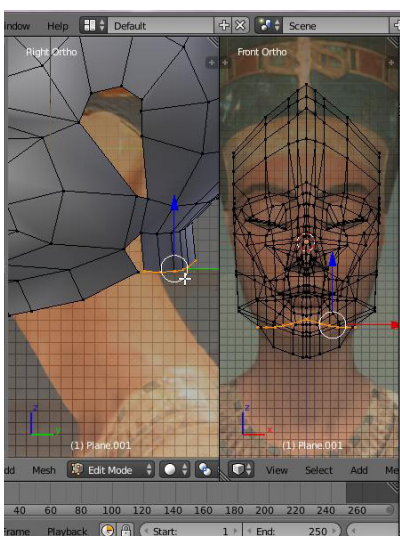
Perhaps you have to make the neck a bit thinner.



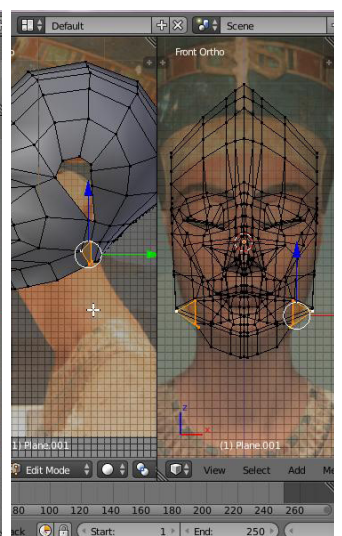
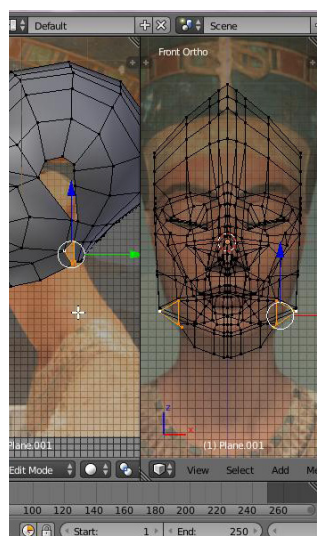
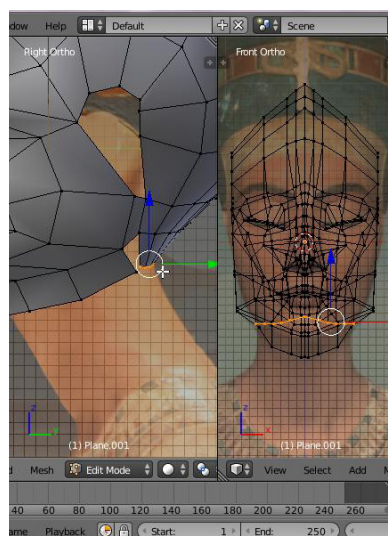
Choose all the vertices in the back of the neck - a tips - you can use C or B to get a rectangle to choose with. You can also hold down CTRL and with the left mouse button drag a lasso around the vertices.



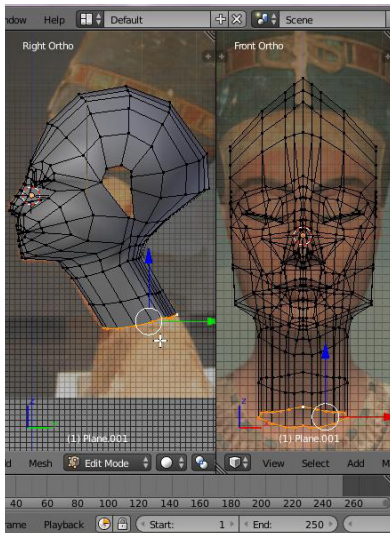
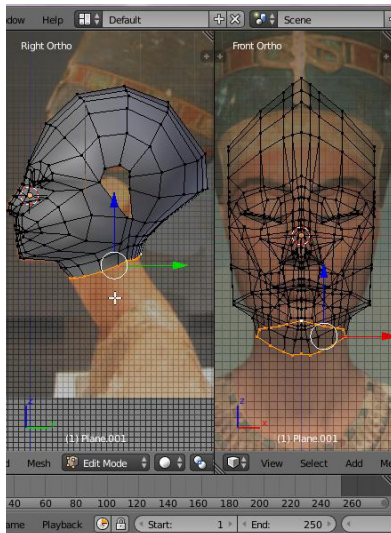
The back of the neck you perhaps have to soften a bit. T to get the Tools menu and click the button Smooth Vertex and a certain numbers of Repeat.



E - to extrude the back of the neck a little more. And perhaps you have to scale it a bit horizontally with - S+Y

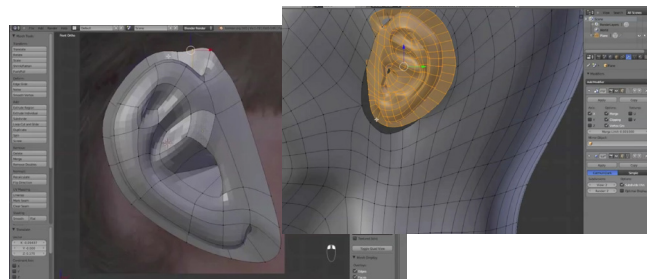


Select 4 vertices to join the necks parts. F - to make a face to join them.

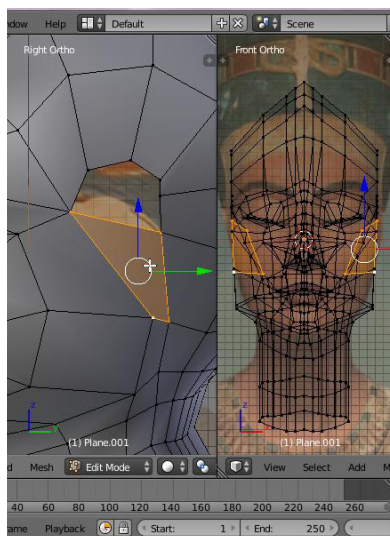
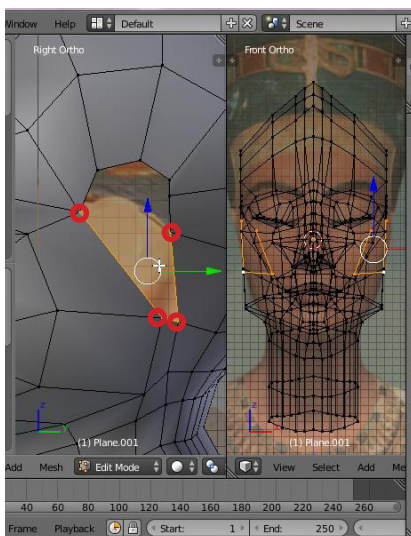


E - to extrude the neck some times.

The extrusions you perhaps have to rotate to get them a bit horizontally.



On youtube.com you can find Joshua Algers Modeling The Human Ear (Now made simple) och Merging The Ear & Head if you want to learn how to make an ear and attach it to the head. To make it simple I will leave out how to do it in this tutorial.



To get rid of the hole for the ear - select 4 vertices.

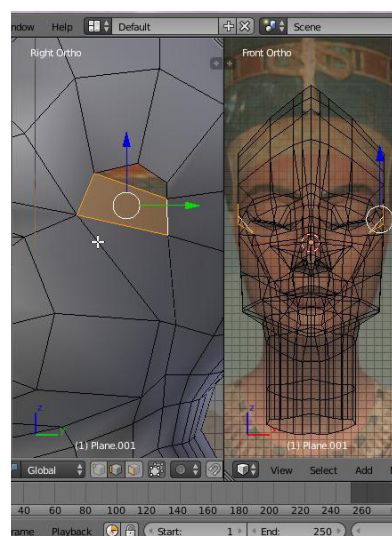
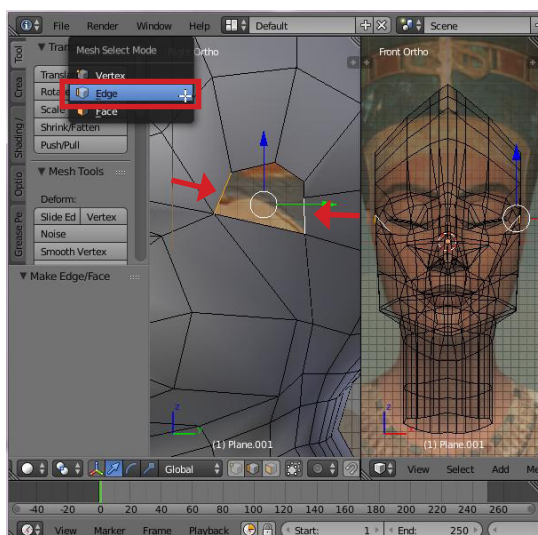
F-key to make a face

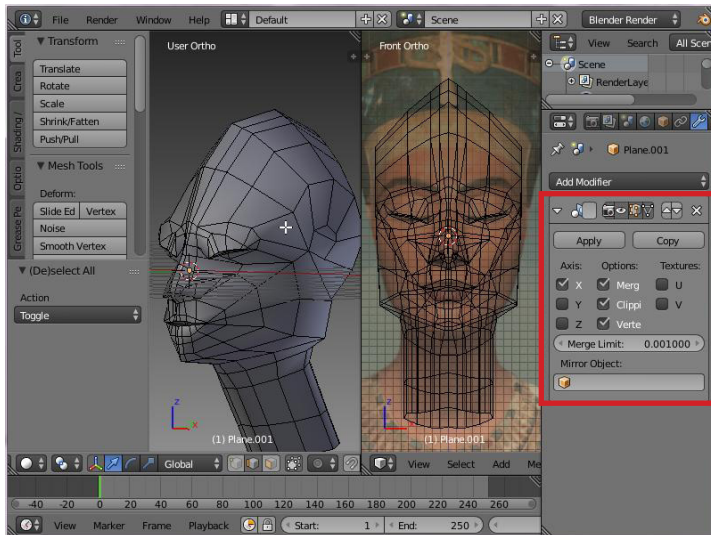
You can also make a face of two opposing edges.

CTRL+ALT and choose Edge.

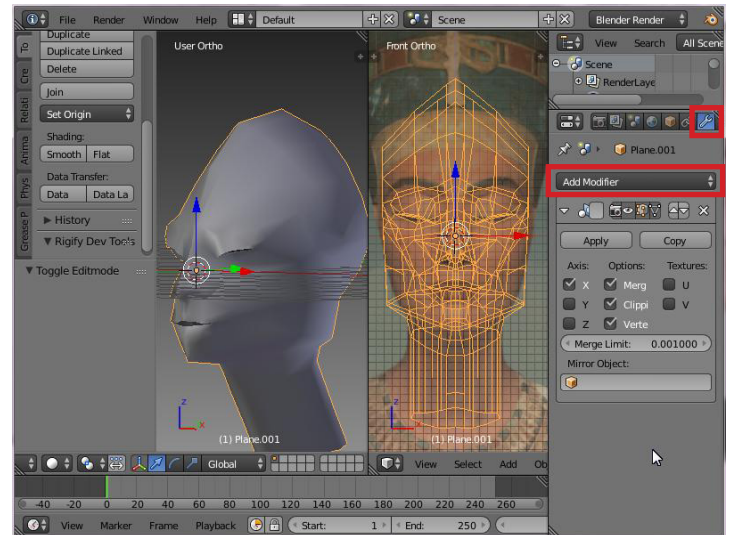
Select two opposing edges and then - F - to make a face. Continue in the same manner to fill the gap.

It is also possible to make a face from three vertices.

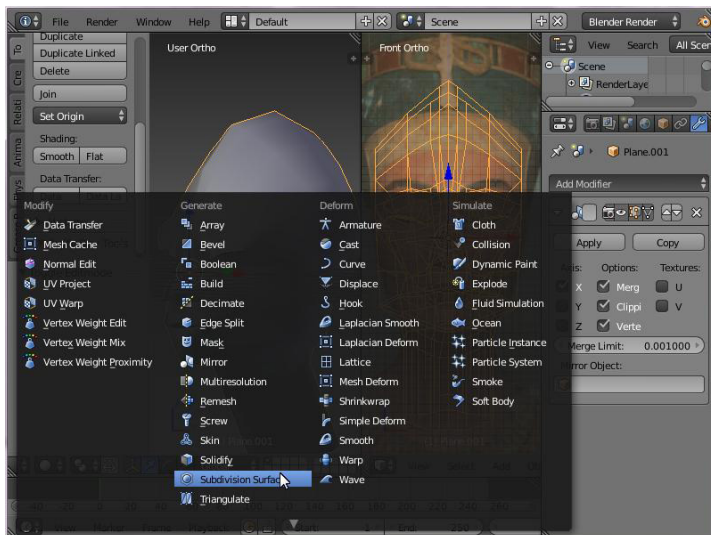




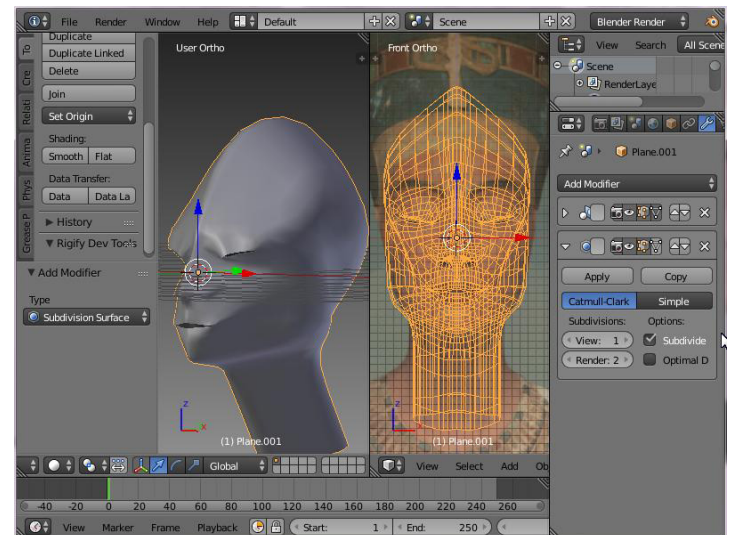
This is how it looks then the gap is gone. The head has only one Modifier - Mirror.



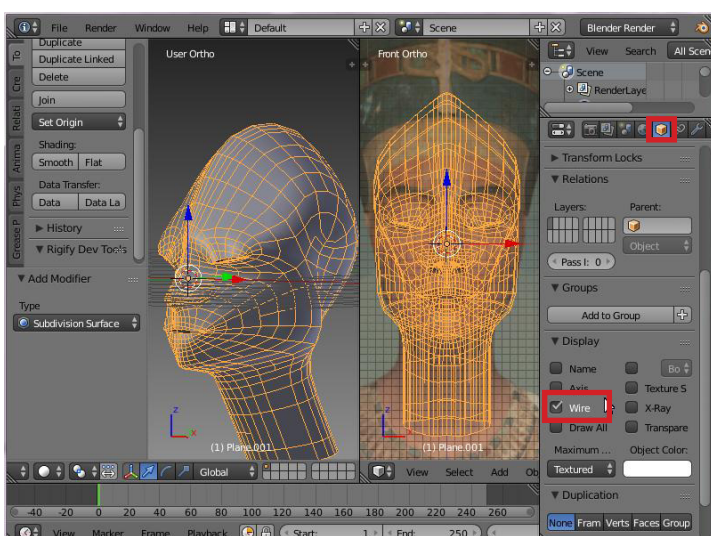
Tab to go to Object Mode. Now you can add a Modifier to round the head. Click the button Add Modifier on the Modifier tab.



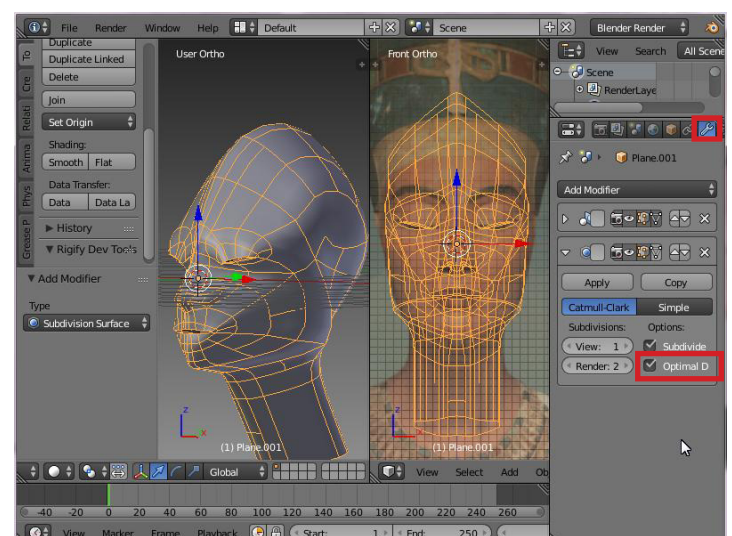
Choose Subdivision Surface.



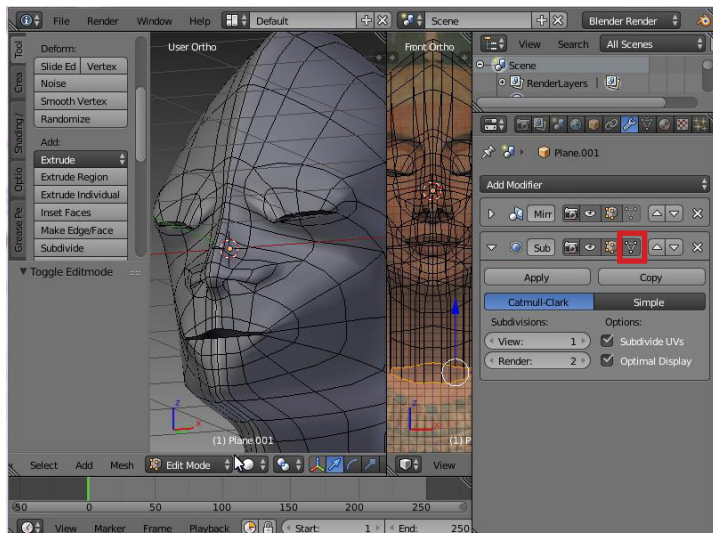
The mesh will get a lot of new wires.



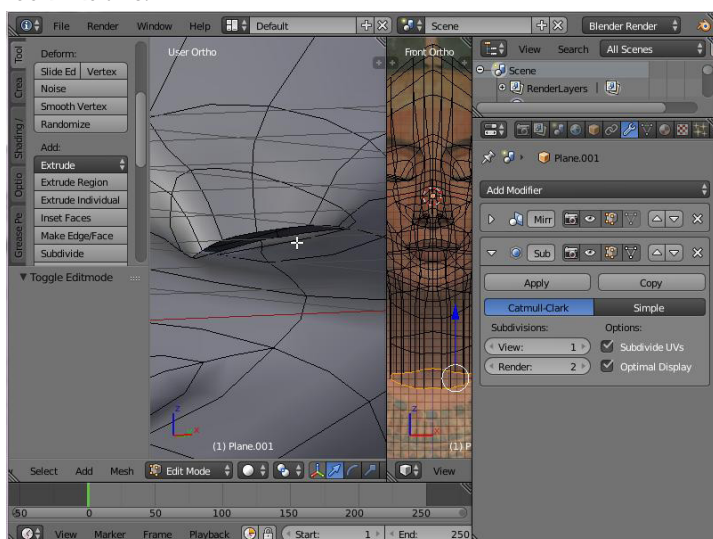
On the Object tab you can mark Wire.



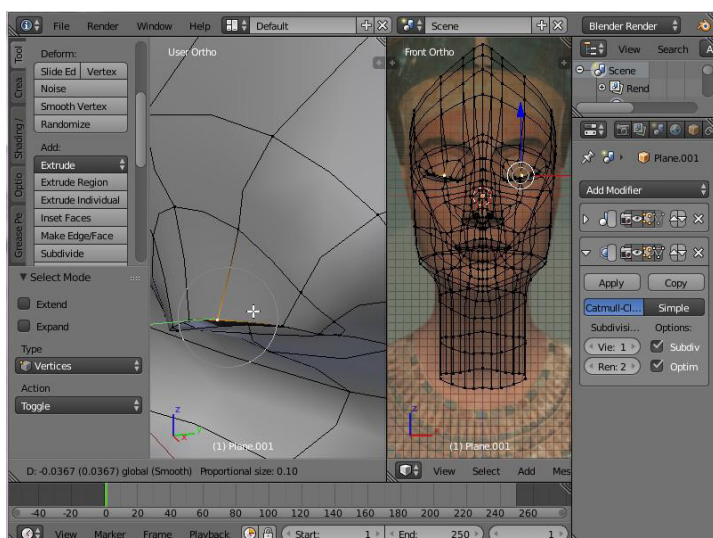
And then on the Modifier tab mark Optimal Display. It will now be easier to use Sculpt Mode to sculpt.



Go to Edit Mode and you can find a small button belonging to the Modifier - Subdivision Surface. Is this button checked the head look like this.

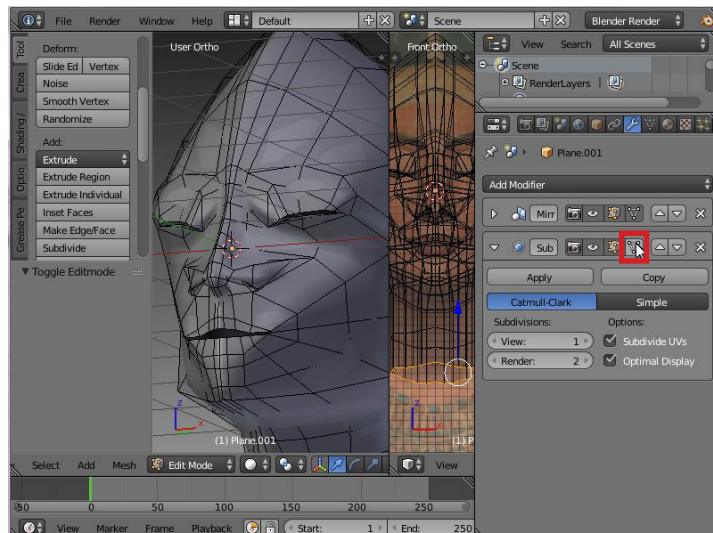


The eyelids you perhaps have to adjust.

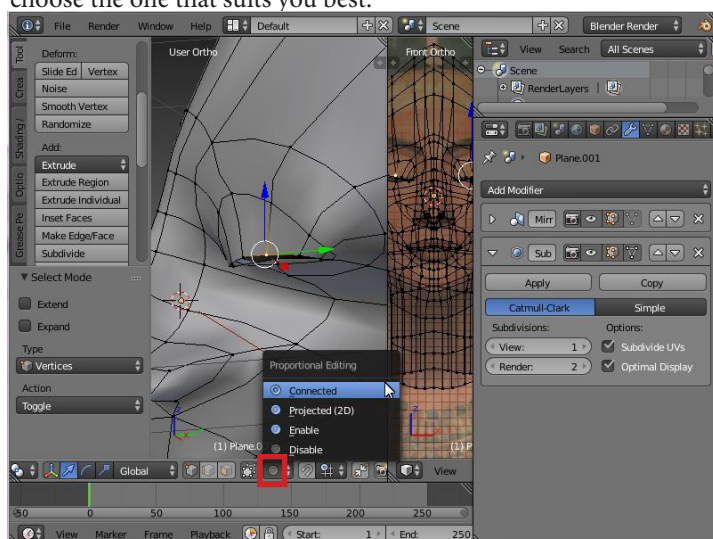


If Connected is chosen and you drag in a vertex you will get a circle showing which vertices will be influenced. Roll the mouse wheel to adjust the size of the circle.

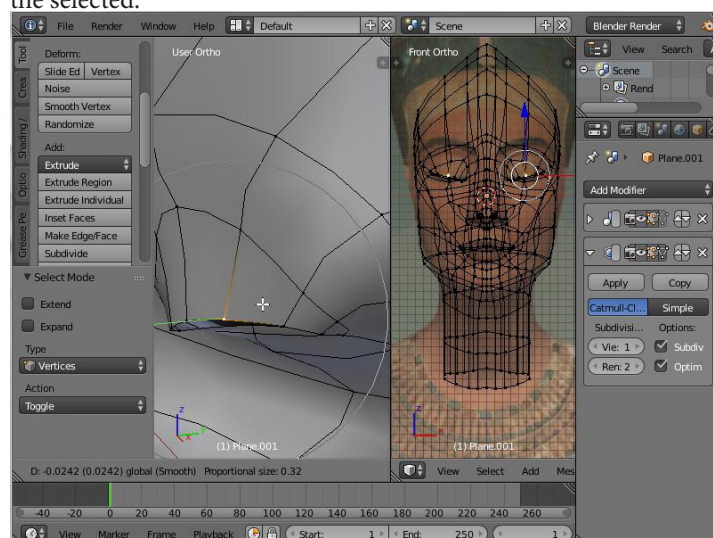
Connected(2D) and you can influence two meshes eg. a head mesh and an eye mesh.



If you uncheck the button a "cage" will turn up around the head. You can use both approaches then you work with the head - choose the one that suits you best.

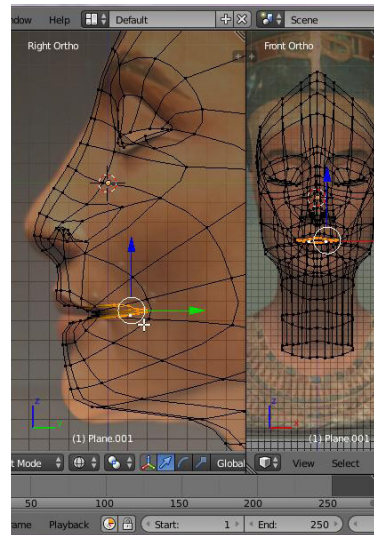
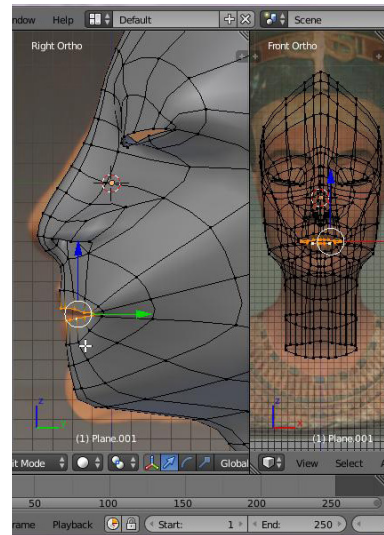
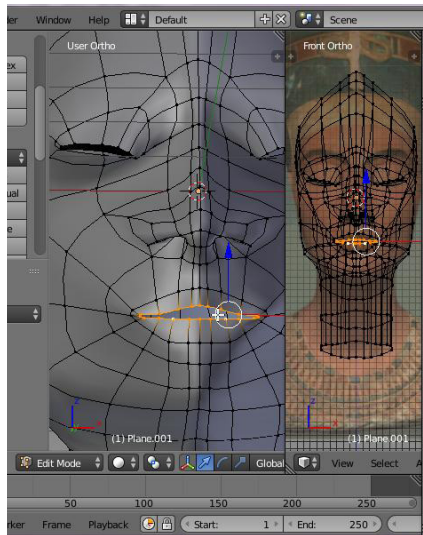


You can choose one or more vertices to move them with help of the X-, Y-, Z-arrows or use - G or use the little white circle drag with the right mouse button and confirm with the left mouse button. You can also choose Connected to influence vertices around the selected.



ALT+O and you can turn off Connected or choose Disable from the menu.

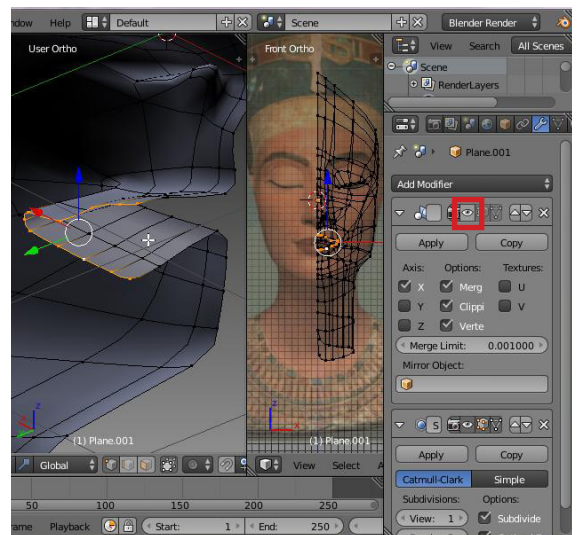
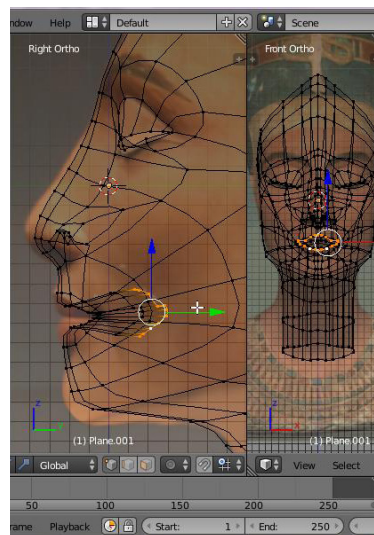
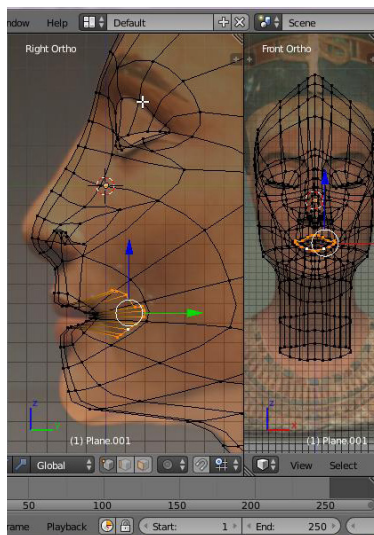
O-key will turn it on.



The mouth will need an opening.
ALT click between two vertices to
choose the whole inner mouth loop.

3 - to go to Right view.

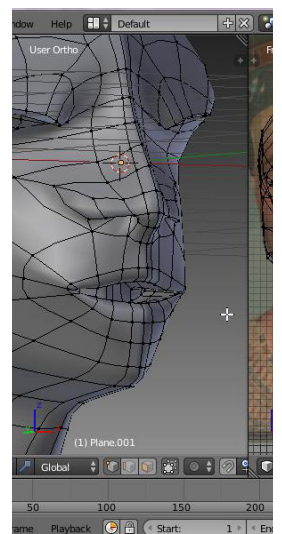
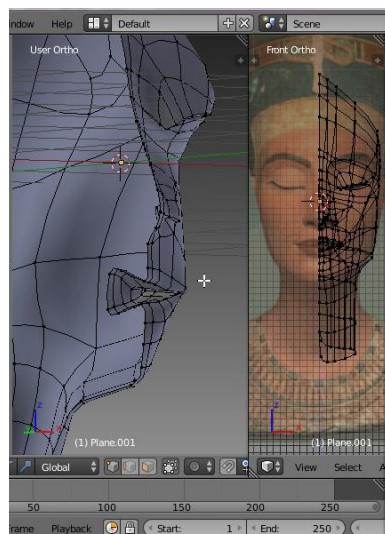
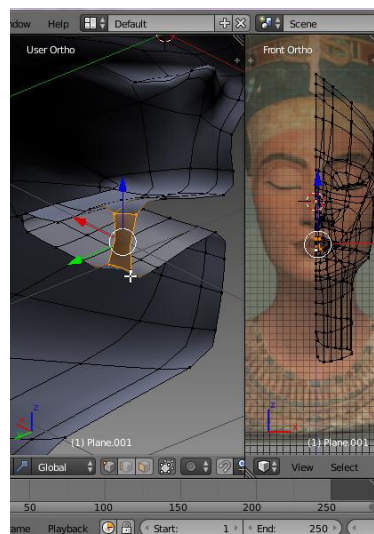
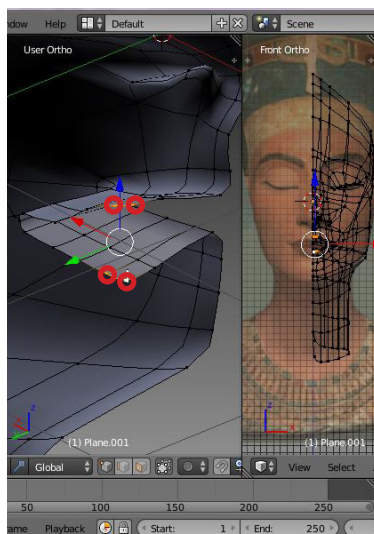
Z - to go from Solid to Wireframe
E - to extrude a bit inwards in the mouth



S+Z - to scale vertically

E - and you can extrude some
more times

Z - to go from Wireframe to Solid
If you deselect the eye under the Mirror Modifier half of
the head is hided and you can see the inside of the mouth

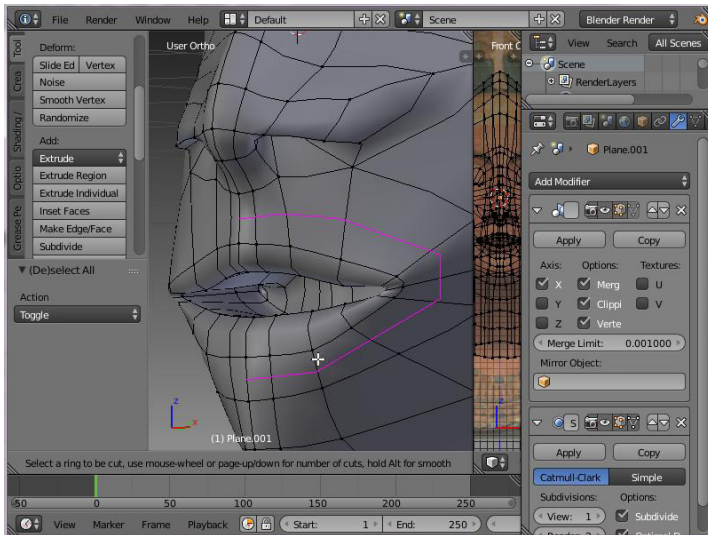


You can make a tongue but let us
not do it - just assemble the mouth
opening.
Select 4 vertices.

And then F - to make a face.

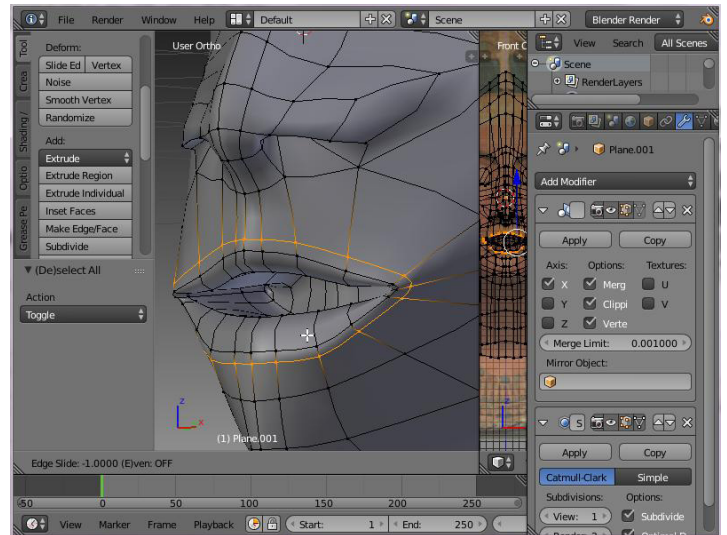
You have to make more faces to
close the innerside of the mouth
opening.

Then you can mark the
eye under the Mirror
Modifier and you can
see the result.

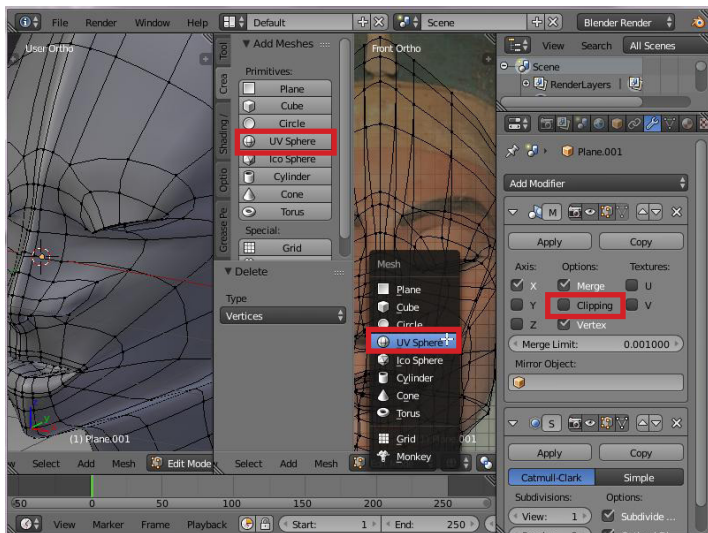


The mouth needs a loop.

CTRL+R and you can make a new loop. Turning the mouse wheel you can make several mouth loops - one can be enough.



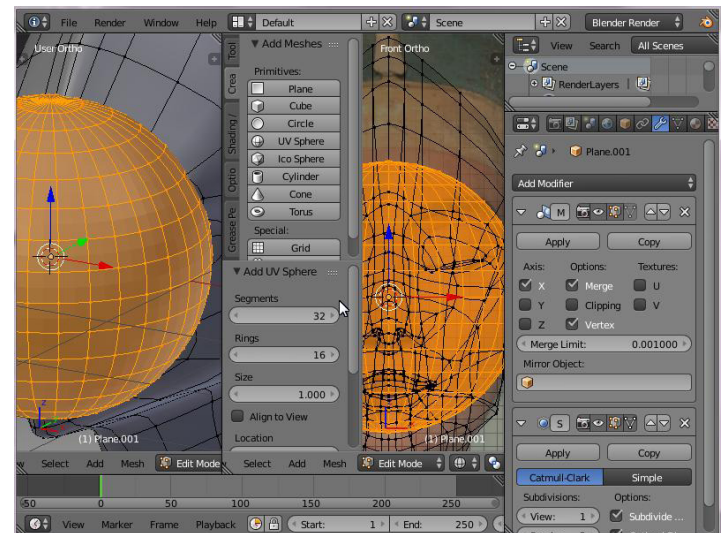
Left click to confirm that one loop is enough. And then you can move the loop near to the outside of the mouth. Left click to confirm.



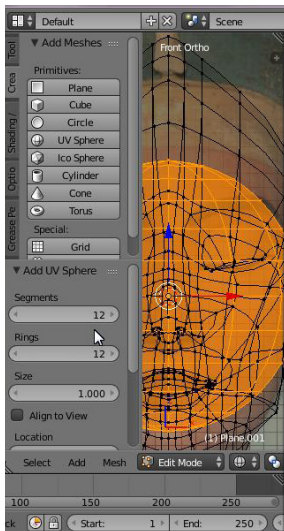
The head needs eyes. Go to Edit Mode. Deselect Clipping under Mirror Modifier.

SHIFT+A and choose UV Sphere from the menu.

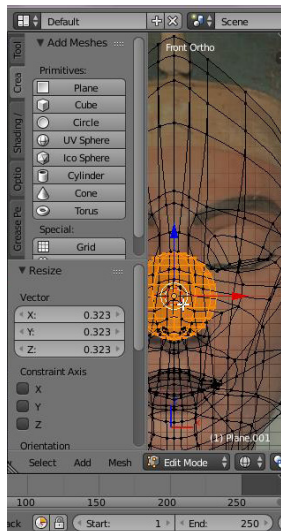
You can also find it on the Tools menu.



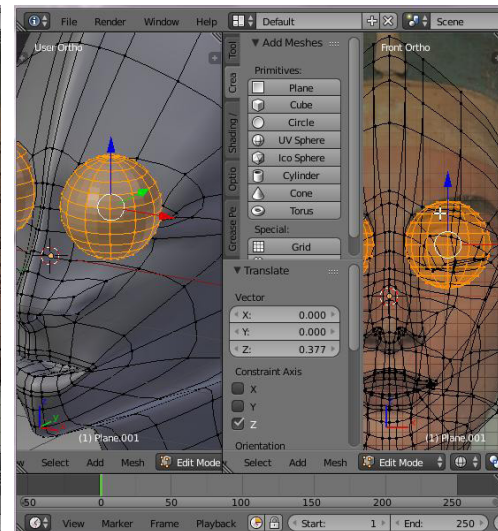
A Sphere is created with 32 Segments and 16 Rings and Size 1



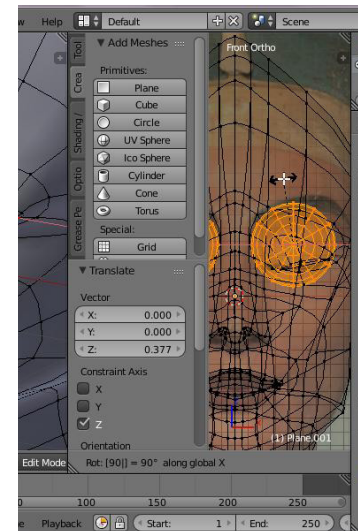
12 Segments and 12 Rings will be enough. Size you can make to 0.2



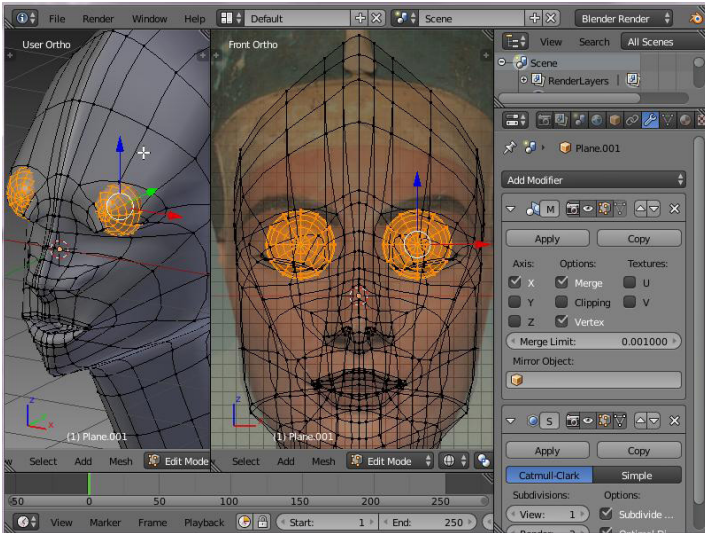
Or the S-key to scale the sphere down. Move the sphere with the red arrow along the X-axis.



And the Mirror Modifier will create two spheres.



R+X+90 and the spheres will rotate 90 degrees around the X-axis and the top of the sphere will point forwards so you can create pupils.

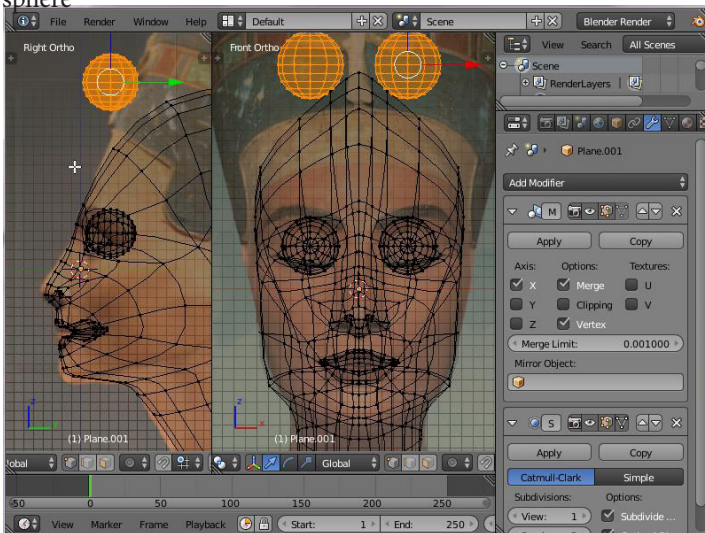


Place the eyes - drag in the eye's X-, Y- and Z-axes.

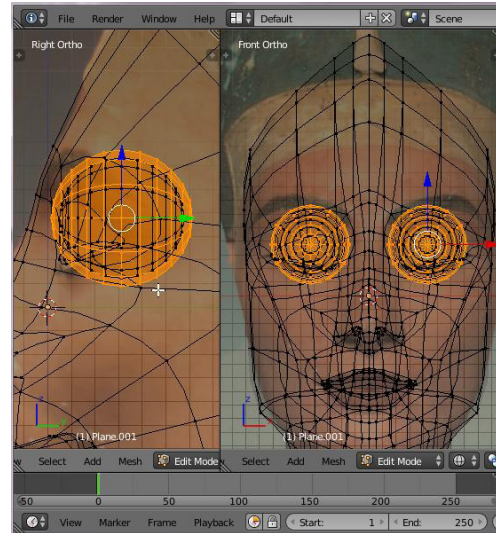
To make eyelids the X,Y,Z-axes have to be in the middle of the eye.

. - full stop sends the X,Y,Z-axes to the 3D cursor

, - comma sends the X,Y,Z-axes to the midpoint of the chosen sphere



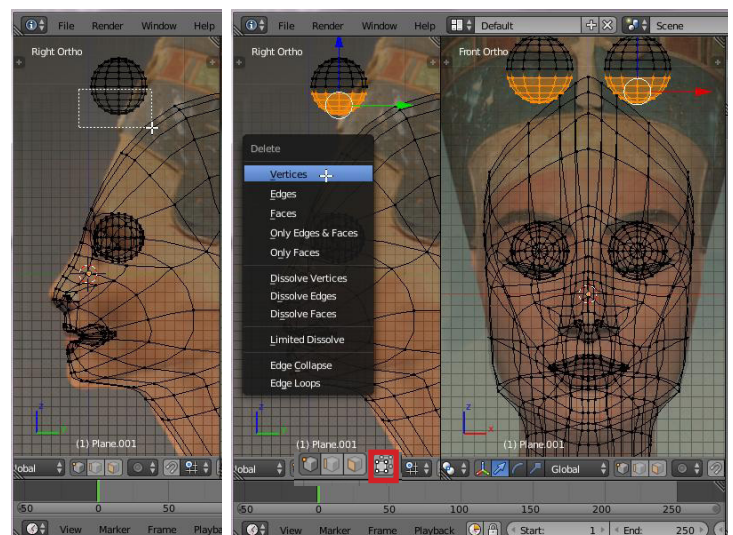
Move the spheres upwards - drag in the blue arrow or G+Z and drag



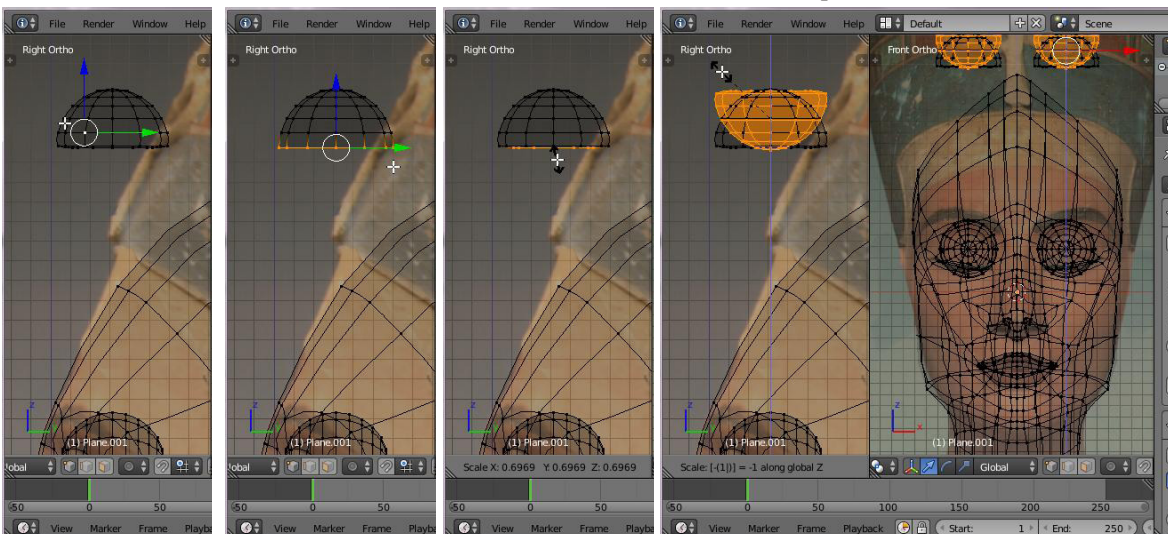
SHIFT+D - a copy of the sphere will be created

S - scale up the copy.

CTRL+X+90 rotates the sphere 90 degrees around the X-axis and the top will point upwards so you can make eyelids.



A - to deselect everything - make sure you can see the back of the spheres. B - and a rectangle to choose the vertices in the lower half of the sphere. X - and delete the vertices.



The upper half is left.

B - and drag a rectangle around the lower vertices.

E - to extrude

S - to scale inwards to get a margin around the eye

B - to select all of the half sphere

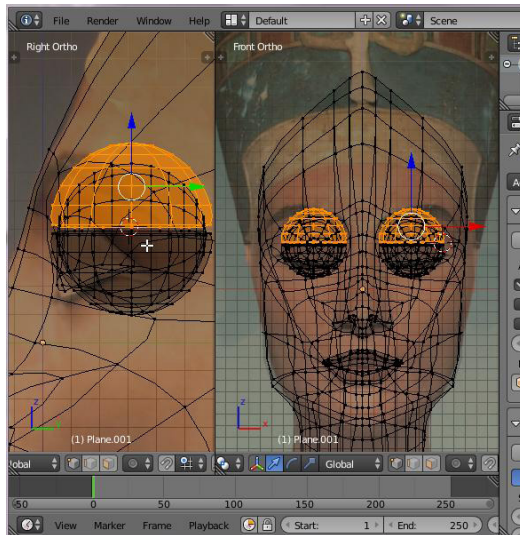
S+D to make a copy

S+Z+ -1 to mirror the copy and get a lower eyelid

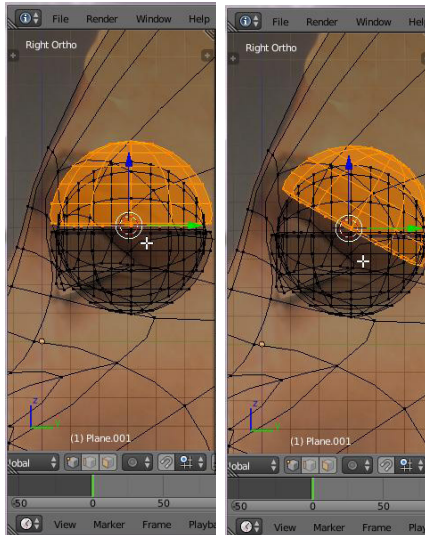
G+Z to move the lower eyelid under the upper

B - to drag a rectangle around both of the eyelids

G+Z to move them down so they will cover the eyeball.



Select one vertex in the upper eyelid
CTRL+L and all the upper eyelid is chosen



Left click to place the 3D cursor in the upper eyelid's lower border.

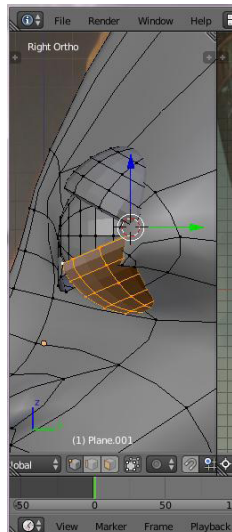
. - full stop - to move the X,Y,Z axes to the 3D cursor

R - to rotate the upper eyelid around the 3D cursor

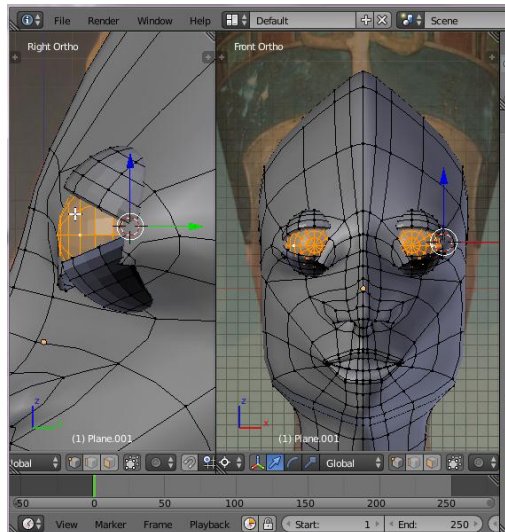
A - to deselect all - and then choose a vertex in the lower eyelid

CTRL+L to select all of the lower eyelid

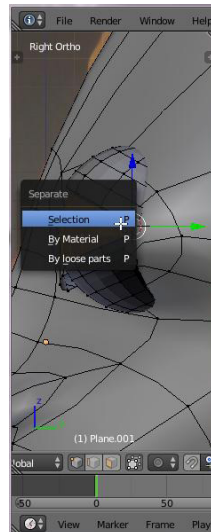
R - to rotate it around the 3D cursor



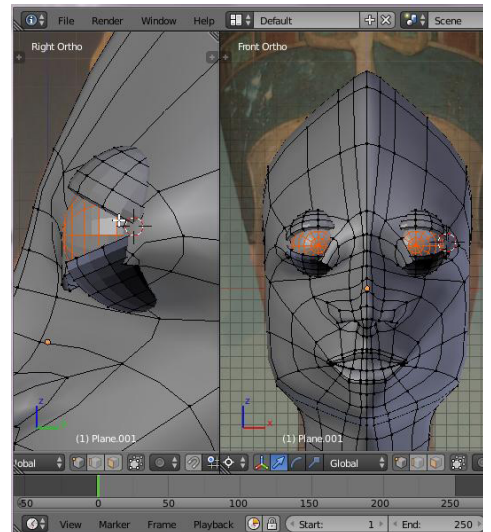
Z - to go to Solid
and see the result



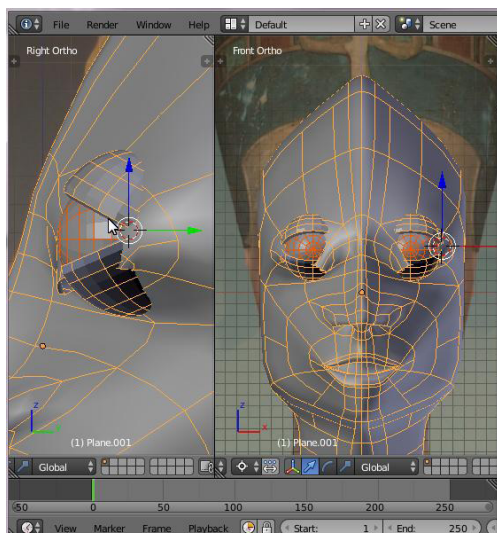
A - to deselect all. Select a vertex in the eyeball
and CTRL+L to choose the whole eyeball



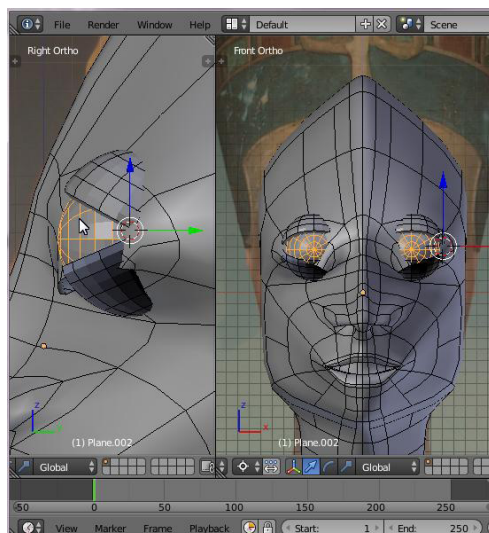
P - and choose
Selection



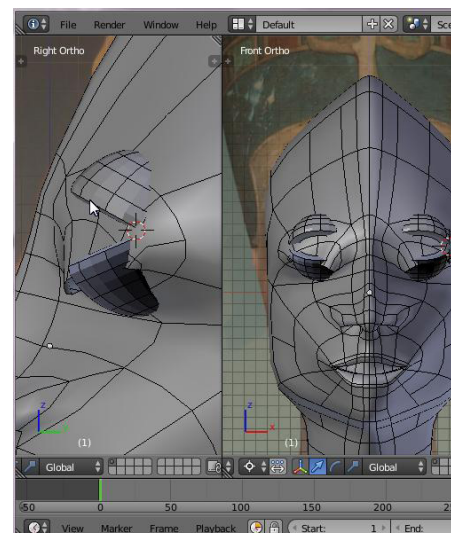
The eyes now are their own mesh and can
not now be edited together with the head.



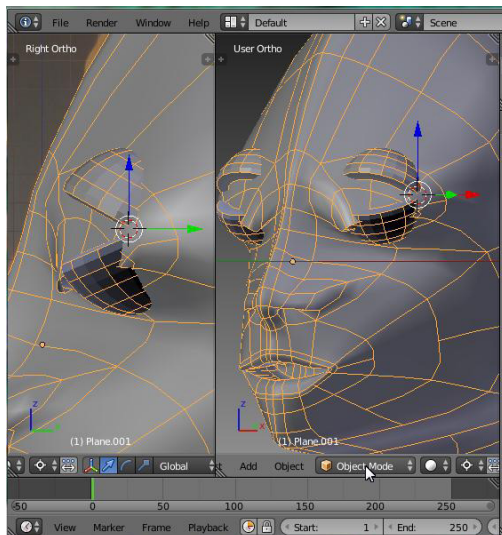
Tab - to go to Object Mode.
The color of the head and eyes are now different. They are two separate meshes.



Select the eyes.

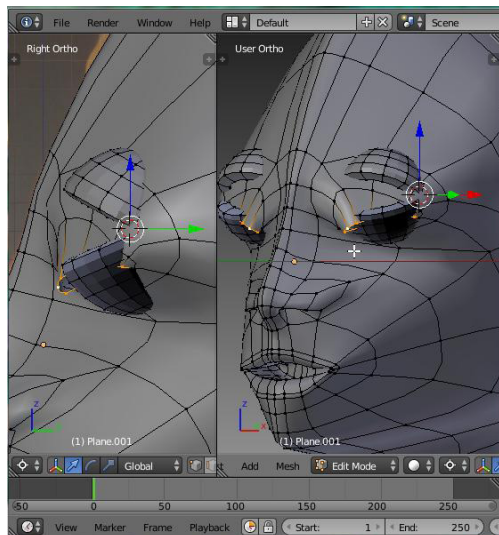


H - and the eyes are hidden
ALT+H if you want to unhide the eyes.

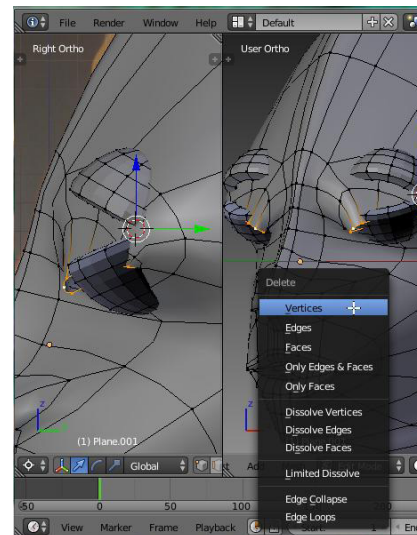


You can have a look on the head in Object Mode

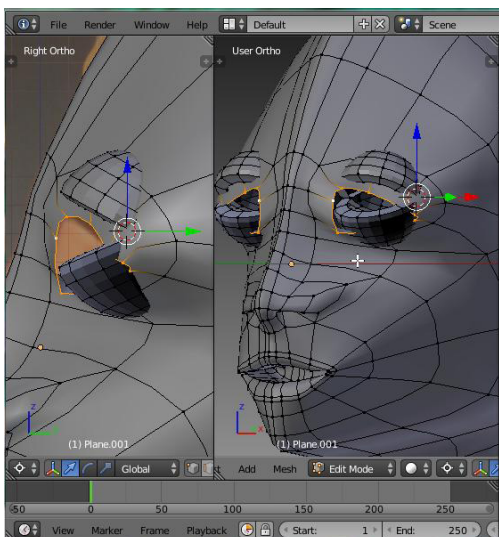
The heads eyelids doesn't correspond with the new eyelids.



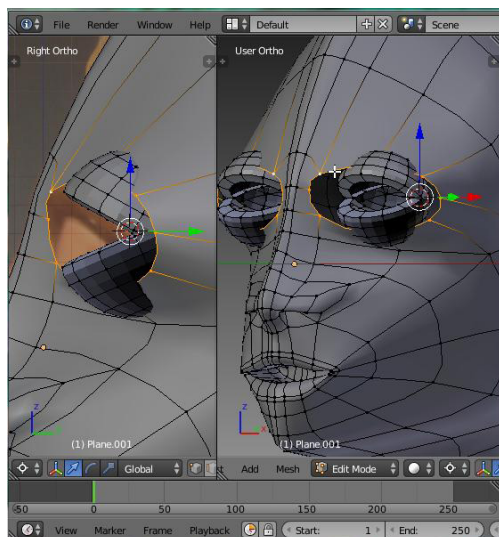
The easiest way is to delete the heads eyelids. ALT click to select the whole last loop in the eyelid.



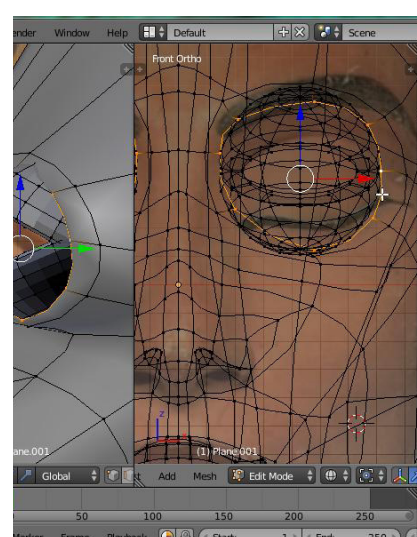
X - and choose to delete the vertices.



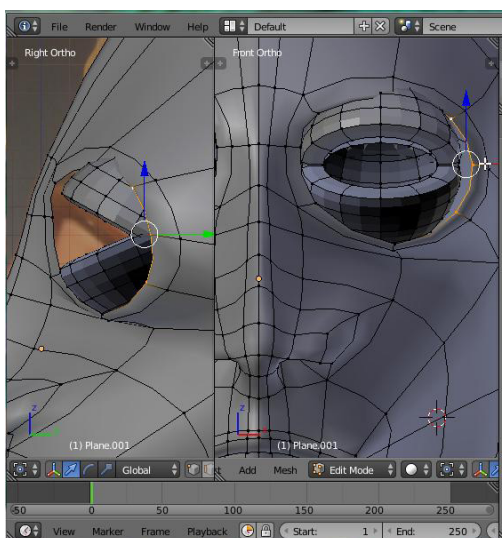
ALT click to select the next loop in the eyelid and then
X - and choose to delete vertices.



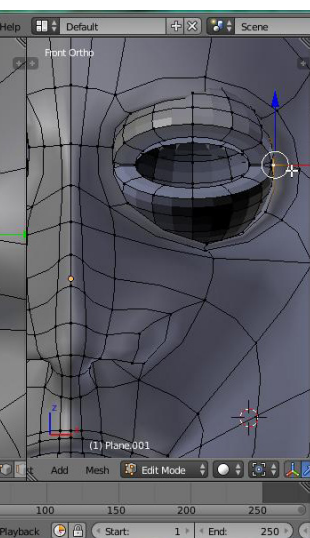
ALT click to choose the next eyelid loop.



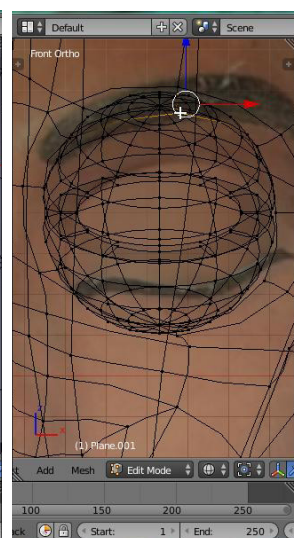
1 - to go to the Front view.
E - to extrude it and then
S - to scale the loop inwards



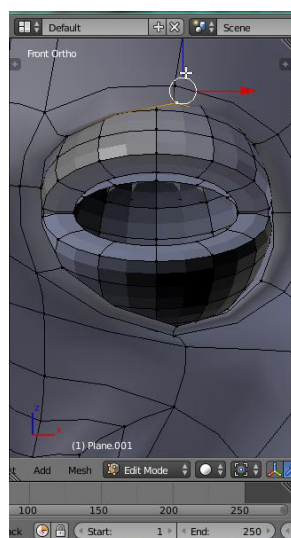
The new eyelid does not suit the eyelids.
Choose one or more vertices and drag them in place.

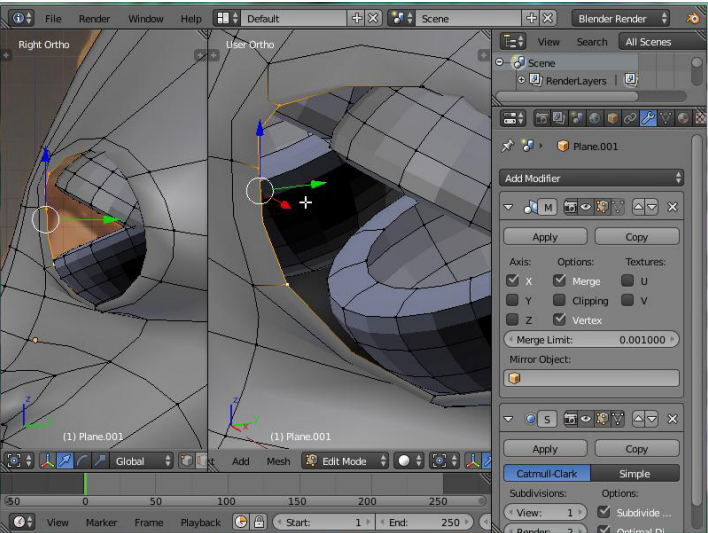


Get them to connect better to the eyelid.

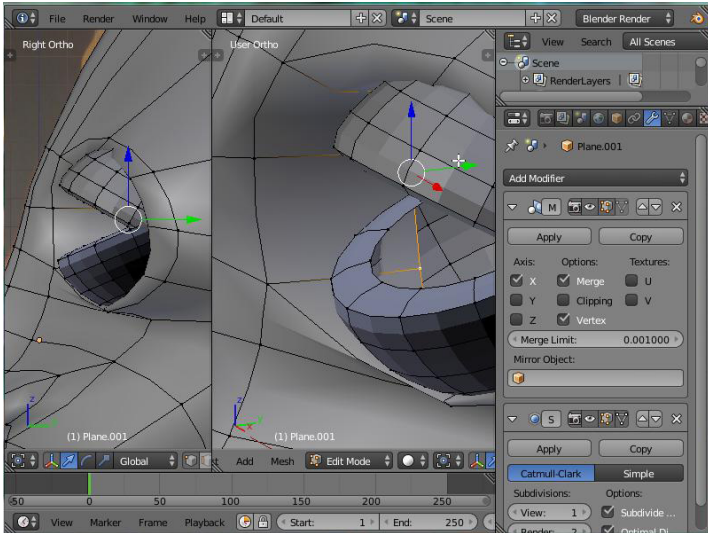


Some of the vertices you want to move can be hidden.
ALT click to choose the loop and then Z and go to Wire-frame to see the vertices you want to move. Move them.
Z - back to Solid and move the vertices a little more.

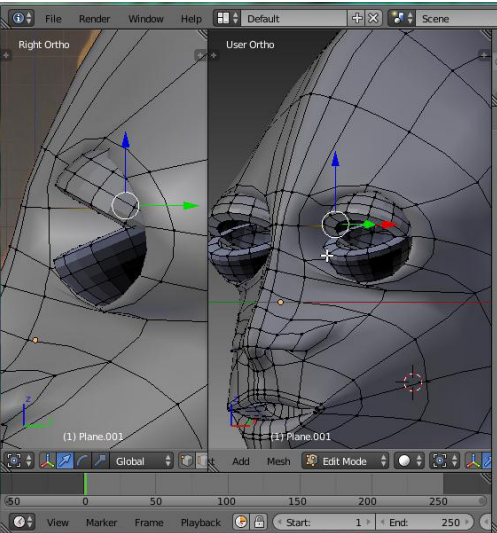




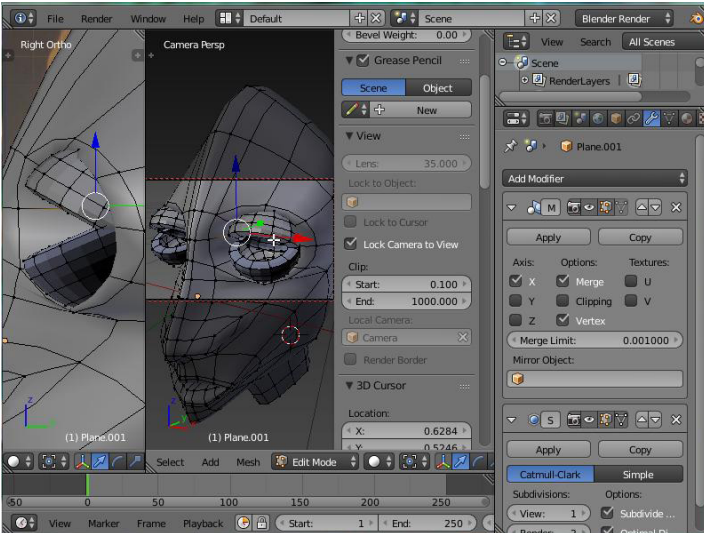
There is a large gap between the nose and the eyelids - choose the vertices and drag them into place backwards with the green Y-arrow.



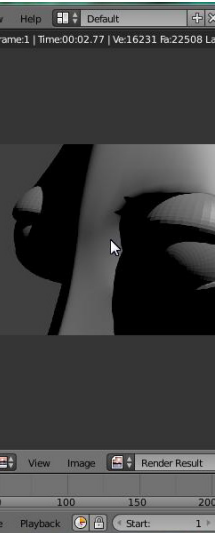
The result.



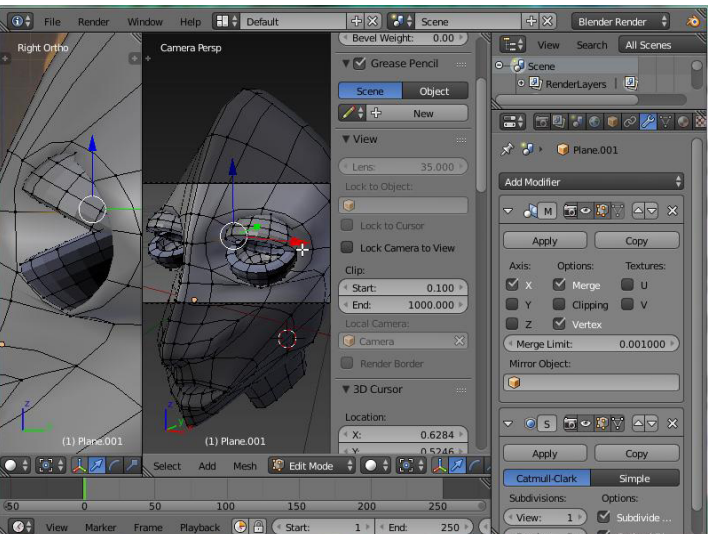
Turn the scene a bit and you can have a better look.



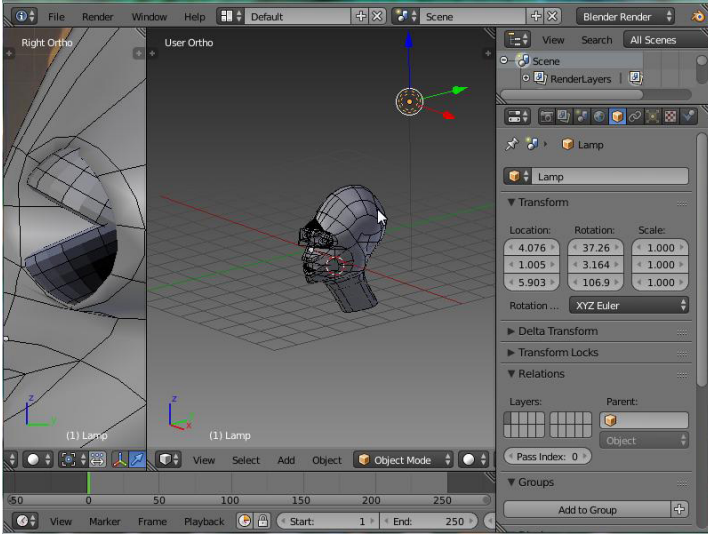
0 - and you can see what the camera sees. N - shows the Properties menu and you can select - Lock Camera to View and zoom, pan and rotate the scene to get a good camera angle.



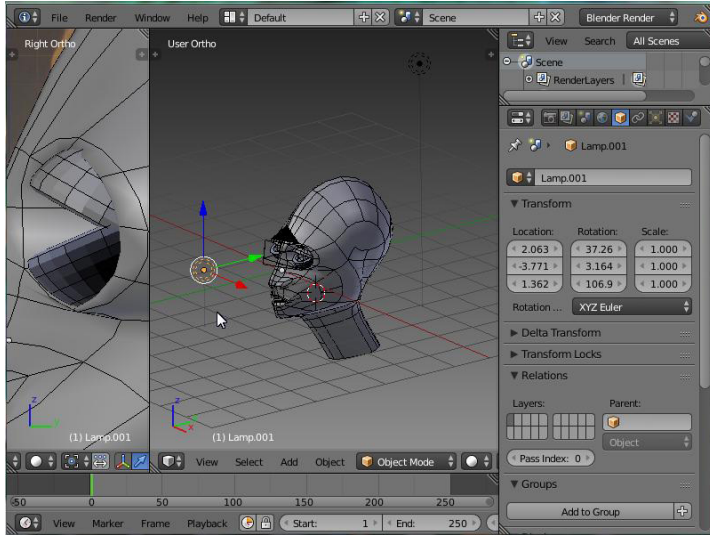
F12 for att rendera.



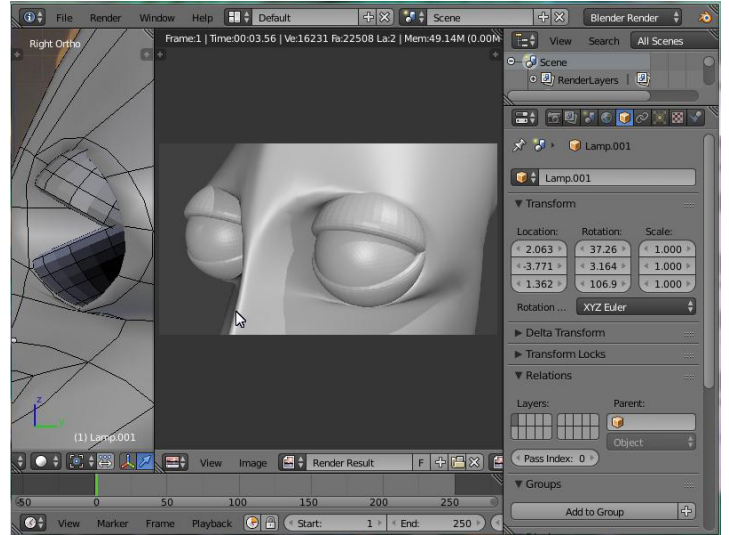
The rendering turned out a bit dark. ESC to get back to the camera window and deselect - Lock Camera to View. To light up the scene go to Object Mode.



Select the lamp.



SHIFT+D and the selected lamp is copied. Drag the copy in front of the head. Perhaps you have to make one more copy of the lamp in the same manner.



ALT+H to unhide the eyeballs in Object Mode.

0 - to get the camera view. N-key to - Lock Camera to View. Choose camera angle - F12 to render.